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"ACCREDITED HIGHER INSTITUTIONS"

Bureau of Education Bulletin No. 10, 1926, entitled, *Accredited Higher Institutions*, gives a series of lists of approved colleges and universities. The standards of various accrediting agencies are reproduced in full, showing the characteristics demanded for the approval of institutions of various types: senior colleges, junior colleges, and teacher-training institutions. This is the third bulletin published under this title; the first two appeared in 1917 and 1922. The purpose of these publications is described as twofold: to furnish state and institutional officials with lists of higher institutions and to show the progress which is being made in the movement to standardize colleges.

The first approved list of colleges was prepared less than two decades ago. The list of the North Central Association of Colleges and Secondary Schools, which was the first to be prepared by a regional standardizing association, was demanded by the secondary-school men in the association who regarded it as an injustice that the high schools should be required to conform to standards while the colleges were allowed to follow their own devices in organization and in the administration of students. Today, clearly defined standards and approved lists of colleges are available for almost every section

of the country. The tonic influence of the movement to standardize higher institutions is very generally recognized. The effects of standardization are seen in the higher grade of training exhibited by members of the faculty, in the increased support of institutions, and in the sharper differentiation between institutions of various types.

Above all, there is evidence in the increasing uniformity among the standards adopted that the definition of what constitutes a college is becoming clearer. The educational chaos which existed in this country a few years ago when some colleges were less well equipped and less well staffed than good secondary schools is rapidly disappearing.

In the movement to render uniform the standards for higher institutions, the American Council on Education has taken a vigorous and effective part. Through its committee known as the National Conference Committee on Standards of Colleges and Secondary Schools, series of standards were prepared and transmitted to all the regional agencies.

To this summary of what has been going on in the way of standardizing colleges may be added a statement regarding the part played by the Bureau of Education. True to its traditions of non-interference with the affairs of institutions in the various states, the Bureau of Education has not attempted to set up or to advocate any standards. It has contributed to the movement by distributing information. As stated in the bulletin, "It should be emphasized that the colleges and universities listed in this bulletin are not accredited or approved by the Bureau of Education. Inclusion in this bulletin does not imply national governmental recognition. The Bureau of Education makes no attempt to rate or to standardize the collegiate institutions of the country."

EFFICIENCY OF TEACHING AND SIZE OF CLASS

Evidence accumulates on every hand that there is very little relation between efficiency of teaching and size of class. A good teacher adapts his work to the size of his class and secures, it seems, results with many students which are equally as satisfactory as the results which he secures with small classes. The latest investigation on this matter is reported by Dean M. E. Haggerty, a member of the University of Minnesota Committee on Educational Research.

This committee is described as follows in Supplement No. 2 of the *Educational Record*, published by the American Council on Education:

The University of Minnesota Committee on Educational Research is a non-administrative body appointed by the president of the university for the purpose of studying the problems of college education in this university. Its formal reports are made directly to him. The committee is composed of fourteen members of the university faculty, eleven of whom are administrative officers.

The procedure adopted by this committee in dealing with the relation of instruction to size of class and the conclusions toward which the committee is being led by its findings are reported as follows:

Like other educational institutions, the University of Minnesota has been faced not merely with an increase in its total student registration but with an irrepressible growth in the size of classes in which students must be instructed. To the minds of many college teachers this development presages a decrease in the quality of instruction and a consequent decline in the level of student work. Many of the best college instructors here and elsewhere share this view. Stimulated by this condition and encouraged by the success of certain investigations in the high-school and elementary-school fields in regard to the size of classes, the general committee decided to encourage a study of the problem in the University of Minnesota and created a subcommittee for that purpose. Specifically, it was proposed "to study the achievements of students when instruction is given in small classes, in classes of medium size, and in classes which are large." This subcommittee, of which Professor Hudelson is the chairman and which numbered in its membership a professor of psychology, a professor of education, a professor of anatomy, the dean of the Law School, and one graduate student in education, began its work by the preparation of a complete annotated bibliography of experimental and other studies relating to the problem. At the same time, it undertook to conduct two controlled experiments and developed a dependable technique by which experimental work could be carried on. In the meantime, the committee cast about for places where experimental work could be tried out.

The subcommittee has now surveyed the trend in size of classes in certain undergraduate courses through a six-year period. It has also studied the distribution of marks in introductory college courses over the same period, the study involving the analysis of the records in 217 large and small classes. In addition to the two controlled experiments already mentioned, there have been completed two carefully controlled experiments in the courses in contracts and in criminal law, two similar experiments in a course in education, and two others in the course in elementary psychology. In addition to work completed, there

are under way the following projects, in some of which the experimental work is finished:

a) General psychology, involving fifteen classes and five separate instructors.

b) Introductory sociology, two class sections.

c) History of education, six sections.

d) Educational psychology, four sections.

e) The high school, six sections.

f) Mental tests, two sections.

g) Mechanism of exchange (School of Business), two sections.

Other experiments are projected in economics, mathematics in the School of Engineering, sociology, American history, English, anatomy, and in a number of the courses in education. Along with the study of college courses the subcommittee has advised and encouraged two experiments of one year's duration in the departments of mathematics and English in the University High School.

It should be said that neither the subcommittee nor the general committee has been of one mind upon the desirability of large class instruction. They have been willing to submit the question to experimental study and to suspend judgment until the data are assembled and analyzed, and it is realized that a dependable conclusion requires long-continued investigation. Those of us who desire to have our faiths quickly verified have been eager for results, but all that the subcommittee has ventured to say thus far is the following cautious interpretation of experimental results to date.

"Certain general tendencies seem to be emerging. It appears that the size of the classes in the courses thus far investigated has little or no effect upon results measured in terms of student achievement. What slight differences exist seem, on the whole, to be favorable to the large classes, and the method of teaching employed does not seem to affect this difference.

"It may be that there are important educational outcomes accruing, or at least accruable, only from small classes which have not been detected in these experiments because no one knew how to measure them reliably. All that can be claimed is that, when measured in terms that are commonly employed in university classes, these students seemed to be unaffected by class size."

CHICAGO HIGH-SCHOOL PRINCIPALS

James Weber Linn, the writer of the column in the *Chicago Herald and Examiner*, entitled, "Round About Chicago," recently discussed the duties of the high-school principal of Chicago and the difficulties which he encounters.

What would you say to a five-million-dollar plant, with hundreds of employees, turning out an article for which the demand is insatiable, which paid its executive head seven thousand dollars a year? Well, practically all the big high schools in Chicago fit the description.

Many of them run away above the five-million-dollar classification. If you question the statement, visit one. In some of them you will find $150,000 worth of equipment in a single room, and you will find miles of rooms. You may be a good walker, but the principal will prove a better one, and, after you have trod the corridors of Lindblom or Schurz from end to end, you will discover why all high-school principals live to be old. It's the exercise that does it.

Every dime's worth of equipment in these plants must be receipted for on delivery by the principal. Every particle of guaranteed product turned out must have the principal's O.K., and, though the graduates are numbered by hundreds every year, you'd be surprised to find what an infinitesimal fraction of them the principal didn't certify to from personal knowledge.

System does it, you think? System and the personal equation are eternally at war, and there are many thousands of personal equations in every high school. The only exact comparison that I can think of, is the president of a small college who has seen his institution expand to the size of a state university and has retained all the duties he had while it was still Wheaton or Lake Forest. Such a college president would die, because college presidents are temperamental; but a principal can't afford to be temperamental, because he can't afford to die; not on his pay.

Suppose you had to run a five-million-dollar plant that produced steam engines and had just got it into what you regarded as working order, and a member of the board of directors whose training in the production of steam engines had been confined to raising string beans came along and ordered a radical change; and twenty-four hours later another who had been educated as ribbon clerk ordered another change; and every now and then a competitor who you thought produced steam engines that were all whistle and no wheels, told your board how engines should be made, and they nodded their heads and urged you to make them so. Suppose all that, and you can sympathize with the principals of our Chicago high schools.

I doubt whether your imagination could carry you so far. You would burble, and the slithy toves would gyre and gimble in your nut. But the principal never bats an eye.

CO-OPERATIVE WORK ON A JUNIOR HIGH SCHOOL CURRICULUM

Recognizing the importance of relating the work of the three junior high schools of Lakewood, Ohio, to the work of the elementary schools and the senior high school, Superintendent C. P. Lynch organized a program of co-operation in the reconstruction of the curriculum which is described as follows by C. C. Clark, principal of the Horace Mann Junior High School:

Early in the autumn of 1924 a committee started work on the selection of subjects to be taught and the amount of time to be allotted to each subject.

This committee was made up of the superintendent of schools, the principal of the senior high school, the principals of the junior high schools, the supervisor of the elementary grades, the heads of the departments of the senior high school, and the supervisors of the special subjects. By the Thanksgiving recess, this committee had made its report.

Immediately, subcommittees, selected to represent every subject taught, began to work out a course of study for each subject or allied subjects. All teachers who were teaching in the junior high schools automatically became members of these committees. Certain teachers from the senior high school assisted them. Their work was completed by June, 1925, and the courses of study were sent to press. Everything was in readiness to put the new program into operation by September, 1925.

C. P. Briggs, principal of the senior high school, was general chairman of all the committee work.

The entire school personnel from the superintendent of schools to the classroom teacher assisted in the framing of this new program. Every department was represented in order that there might be close articulation between the elementary grades and the junior high school on the one hand and the junior high school and the senior high school on the other. The committee worked long and faithfully, and we feel that a good piece of work has been accomplished. No school time was allowed for committee work; therefore, the results cannot be as scientific as those obtained at Denver, Colorado, where a great deal of school time was given to the work of committee members.

The time-allotment committee decided on a six-hour day, the morning session to begin at half-past eight and the afternoon session to close at half-past three. This allows fifty minutes for lunch. The six-hour day is divided into six one-hour periods. The supervised-study plan was adopted; therefore, each hour is made up of thirty minutes of recitation followed by thirty minutes of study under the teacher's supervision.

With six hours to the day and five days to the week, the committee found that it had thirty hours of work a week to plan for each grade. All the work in the seventh grade is required, the child having no choice of subject matter. In the eighth grade, the child can elect one subject from the list given, and in the ninth grade he can elect two subjects.

A subject that is listed for two and one-half hours a week is always paired with another subject that is assigned two and one-half hours or with two subjects that are assigned one and one-quarter hours each. The subjects alternate on different days of the week; for example, in the case of VIII B general science and physical training, Monday, the odd Wednesday, and Thursday are devoted to general science; Tuesday, the even Wednesday, and Friday are devoted to physical training. Therefore, one subject comes three days one week and two the next.

So far, the plan has been running very smoothly. Naturally, we are discovering weak spots, and we are attempting to strengthen them. Committees

have not been discharged; nor is it our intention to call the curriculum a finished product. We feel that the best school curriculum is the one that is constantly being revised to meet the needs of the pupils.

It is not possible to reproduce in full the program of studies adopted by the Lakewood junior high schools. The list of subjects agreed upon for the first semester of the eighth grade will serve to show that the curriculum adopted is a genuine modification of the conventional curriculum. The required and elective subjects are as follows:

Required Subjects	Number of Periods a Week	Elective Subjects	Number of Periods a Week
English	5	Latin	5
Mathematics (algebra)	5	French	5
History and civics, national and state constitutions	5	Special English	5
		Fine arts	5
Physical training	2½	Clothing	5
Music	1¼	Printing	5
Fine arts	1¼	Applied music	5
Practical arts (boys, metal work; girls, cooking)	2½	Commercial (typewriting)	5
General science	2½		
Total	25		

It is evident that co-operation of the kind secured in Lakewood has many advantages. It acquaints all the teachers in the system with the purposes of the junior high school, and it results in a co-ordination which is far in advance of the ill-developed efforts of some junior high schools to mix elementary courses and courses borrowed from the high school without consultation with teachers in other divisions of the school system.

WHAT BECOMES OF ELEMENTARY-SCHOOL GRADUATES IN COLORADO?

During the past year the Department of Educational Research of the Colorado State Teachers College has made a study of the high-school population of Colorado. A group of public-minded citizens in that state were interested in the question: What becomes of the pupils who complete the eighth grade? These citizens supplied the funds necessary for an investigation. The work has been done

on a large scale in a number of counties and has produced some very interesting results.

A part of the material accumulated by this study is available in mimeographed form. One paragraph from this preliminary report may be quoted together with portions of the tables on which this paragraph is based.

The following table shows the relative percentages of boys and girls among those who were promoted to the high school in eleven counties in June, 1925, but failed to attend school in 1926.

County	Percentage of Boys	Percentage of Girls
A	63.6	36.4
B	66.7	33.3
C	*	*
D	51.9	48.1
E	42.9	57.1
F	69.2	30.8
G	58.4	41.6
H	62.8	37.2
I	67.7	32.3
J	51.3	48.7
K	60.0	40.0

*All who were examined in June, 1925, are now attending high school.

The following table shows the relative percentages of boys and girls in the same counties among those who failed in the eighth-grade examination in June, 1925.

County	Percentage of Boys	Percentage of Girls
A	75.0	25.0
B	66.7	33.3
C	66.7	33.3
D	73.3	26.7
E	67.8	32.2
F	42.9	57.1
G	84.2	15.8
H	61.5	38.5
I	27.3	72.7
J	59.3	40.7
K	61.7	38.3

The comment on these tables is as follows:

The problem of educational deprivation at the secondary level in Colorado is largely a boy problem. This is true from the point of view of both failure to

make good in eighth-grade work and failure to take advantage of secondary work when eligible for high-school membership.

The two tables quoted are very illuminating. They show clearly the intimate relation between school failures and pupil expectations. Pupils who expect to leave school prepare for that step by neglecting their work. No one would infer from the table of failures that boys are less intelligent than are girls in the ratios there exhibited. The boys are in process of leaving school. They have their attention turned toward the world of industry and commerce. The girls, as is well known from a study of school statistics, are aware of the social advantages of a high-school education. They intend to go on after completing the eighth grade. Their families expect them to go farther than the elementary school. They are interested in examinations because they must pass them in order to secure the opportunities which they want.

School people ought to make such studies as are being made in Colorado. They will discover that the machinery of the school is not the only social device for the selection of brains. There are some pupils who are picked out by the outside world because that world makes its opportunities attractive and readily recognized.

QUESTIONNAIRES

The editorial writer of the *New York Times* evidently has been subject to some personal annoyance by an earnest seeker after truth. He highly approves the attitude taken by a writer in *School and Society* with regard to questionnaires and comments on the whole matter as follows:

> The questionnaire is stated by a writer in *School and Society* to be "undeniably a convenient and valuable means of securing information." It may be a convenient means for the questioners, but it seldom, if ever, is for the questioned, who are often called upon to reveal the intimate facts of their experience or observations. In eliciting data, it has defects, as this writer admits and points out, with respect to certain kinds of information, as, for example, the study habits of children who are asked to give testimony about themselves. The following questionnaire is cited as having been used with high-school students.
>
> Do you usually read the assignment once, twice, or three times?
> Does it bother you to study in a room where other people are talking?
> Are those lessons studied at home your hardest or easiest?
> How long, as a rule, do you spend on each lesson in the subjects you are carrying?
> How long do you study at a time?

Do you read your lessons aloud? Do you close your book and repeat your lesson to yourself?

Do you try to think out your lesson mentally just before going to class?

How do you prepare for an examination?

To illustrate the "ridiculous" value of such a questionnaire, the writer, who is obviously not only a teacher but also a golfer, suggests that his reader should try to answer the following questions.

Do you usually take one, two, three, or more preparatory swings before driving?

Does it bother you to have some one watch you drive?

Do you usually drive harder on the first or last hole?

How much time (percentage of total) do you spend looking for lost balls?

How long, as a rule, do you spend in building a tee?

Do you look at your hands, the ball, the club, or the hole in putting?

How do you prepare for a match?

The insinuating comment is made that the only golfer who pauses to analyze his movements is a golf instructor or a professional who wants to write a book. Children are not skilled in answering questions about intricacies of their own behavior, and, if they were, their behavior would probably not be the better for it.

Other defects in the questionnaire method are freely cited, and the conclusion is reached that "any picture of study conditions as painted by questionnaire returns is a wrong one." It would not be just to generalize from this, but these illustrations serve to suggest the peril of lazily putting off upon the questionnaired responsibilities which they are not prepared to meet, and then deducing advice from imperfect answers. Less of the written questionnaire method and more of observation and direct testing are suggested not only for the soundness of the questioner's conclusions but also for the convenience and the comfort of the personal sources of "data."

CIVIC IDEAS OF HIGH-SCHOOL PUPILS

If high-school pupils should not be asked to answer introspective questionnaires, their fund of ideas on various matters can properly be studied by the examination method. The following is quoted from a bulletin issued by the University of Wisconsin.

High-school students have a surprisingly large number of false concepts of American history and contemporary politics acquired from conversation with their families, the newspapers, teachers, campaign speeches, and the so-called "patriotic education of the public"—not from their textbooks.

This conclusion is reached in a thesis prepared at the University of Wisconsin for the degree of Master of Arts by R. W. Keahey and N. D. Conners, working under the direction of Professor A. B. Hall, of the political-science department, and Professor John Guy Fowlkes, of the School of Education. The thesis is based on the answers made in 6,128 questionnaires submitted to Seniors

and Freshmen in high schools in Illinois, Indiana, Michigan, Wisconsin, Iowa, and Minnesota.

A list of fifty questions was prepared and submitted to thirty-two leading political scientists who agreed as to whether they represented truth or error. Results of the questionnaires showed that 52.5 per cent of the high-school students subscribed to the "nineteen inaccurate concepts most inaccurately held." A study of the textbooks used in the history and civics classes in the schools in which questionnaires were answered showed that the textbooks could not be blamed.

The nineteen false conceptions which more than half the students accepted as being true are:

1. The best remedy for all evils is to pass laws prohibiting them.
2. The United States has the most democratic government in the world.
3. Political bosses and political machines should be abolished.
4. One function of the United States government is to guarantee every man a living.
5. A good Republican administration means prosperity.
6. The Republican party should not be held responsible for the conduct of Fall and Daugherty, since crime is personal.
7. The voice of the people is the voice of God.
8. Any person criticizing a decision of the Supreme Court of the United States is not patriotic.
9. Those who oppose the initiative and the referendum are undemocratic.
10. A protective tariff always means a full dinner pail for the American workman.
11. The inheritance tax is designed to reach the property of the rich.
12. The men who talk against war when war is near at hand, as in 1917, are unpatriotic.
13. America has always dealt squarely with all nations.
14. When a man has become a good official but has served two terms, it is best that he retire and let someone else have the office a while.
15. Every citizen of the United States has the inherent right to vote.
16. America has no selfish interest in securing the protection of Germany and France.
17. All socialistic principles in American government should be abolished.
18. The Constitution of the United States prohibits the collection of export duties.
19. The United States Congress and high officials have always taken the most progressive action for the betterment of the United States at home and abroad.

The students were also asked to name "the three greatest living Americans." President Coolidge was named by 93 per cent, Henry Ford by 87 per cent, and Thomas A. Edison by 60 per cent.

Comment by the investigators deplored the fact that more than half the students in the high schools will go through life without ever knowing the truth about American history and politics, inasmuch as only 10 per cent of them ever study in college.

Examination of some of the textbooks revealed that the authors failed to state the truth about these concepts. The investigators asserted that the Ameri-

can people do not want their children taught the truth and that many history and civics textbooks are being written for the purpose of getting them generally adopted rather than for the dissemination of truth.

Most of the textbooks, say the investigators, dodge the issue, whereas a few actually give false impressions. All civics books used in the high schools in which students answered the questionnaires "damned all political bosses" and all referred to the Tweed ring, the investigators declared.

WHAT BUSINESS MEN THINK ABOUT THE HIGH SCHOOL

The *School Index* of Cincinnati published the results of an inquiry made by Irving R. Garbutt among the business men of Cincinnati. The following questions were submitted.

1. To what extent should the high-school curriculum follow the demands of the public from the standpoint of business?
2. In your experience in the employment of young men and young women from the public schools in your organization, how well have these demands been met?
3. What criticism have you on the preparation of recent employees in your organization who have come to you from the public schools?
4. What suggestions have you to offer for a better training of the young men and young women whom you wish to employ in your organization as office workers?

The following answers may be quoted as typical of those presented.

The business course in the high school is, no doubt, designed primarily to fit the pupil for immediate employment in the business office following graduation. If this is a true statement of the primary function of the business course, it seems to me that it is quite essential that the curriculum be set up with a view to meeting the demands of business for properly trained office help. However, I do not believe that the demands of the business men should be given too much weight because many times the point of view of the business man will be narrow and somewhat selfish, for he is inclined to confine his thoughts to the needs of his particular business. The curriculum should be planned with a view to providing both a course broad enough to meet the general demands of the public from the standpoint of business and a training designed to build good citizenship.

It should train pupils (*a*) to analyze, (*b*) to have a sense of proportion, (*c*) to think clearly and logically, (*d*) to reason rather than memorize.

Public-school officials are in a position analogous to the legislature in a representative system of government. They are chosen to carry out the wishes of the people, and yet, as representatives of the people, they are supposed to

do the thinking for the people. I think the schools will fail of their highest usefulness if they attempt to follow the demands of the public constantly and slavishly or if they pay no attention whatever to its demands (or needs). The public schools are supposed to train for life, and life is largely "business"; but all classes have a constantly increasing amount of leisure; hence the public schools should train for proper utilization of this leisure and should endeavor to do things, even in the so-called "vocational" departments which may not be directly called for by, or needed in, "business."

Do not feel that opinion is of much value. Believe that the average student graduating from our colleges and high schools has been allowed too much freedom in his selection of courses, with the result that he does not have a complete knowledge of the fundamental subjects, that is, history, languages, political science, mathematics, English, literature, etc. I believe, however, that, from the standpoint of the high-school student who desires training of a specialized nature which will be of immediate advantage financially, the present policy of your high-school course tends successfully to satisfy the demand. This is an age of specialization, but I cannot avoid the feeling that a student should, if possible, stick to the "old-fashioned" courses in the high school.

Only to a limited extent. My theory is that the high-school pupil first of all should have a thorough mental training and should receive an appreciable amount of general cultural education. A special business training should be only part of the general training. Just what part, I cannot say, but my offhand opinion would be from one-third to one-half. I do not believe that the ordinary business man is in a position to judge this as well as the educator who realizes that the foundation of success is in a well-trained mind rather than in a mind trained with a narrow end in view. This applies especially during the high-school age and to a lesser extent through college.

The majority of recent employees have lost the ability to "push work" rather than have "work push them." There does not seem to be the personal satisfaction of overcoming an obstinate or troublesome assignment or, using the more common parlance, of "licking the job." They are inclined rather to let the job "lick" them. It is readily understood that the present spirit of the times as regards young people is the probable cause of this weakness. Maybe the schools can correct this weakness by training.

The criticism of recent employees in our organization who have come from public or other schools is as follows: Their ability to reason is poor. Experience shows that subjects have been completed without a thorough knowledge. Many fail in their earlier positions on account of insufficient training in policies of industry, lack of full understanding of the requirements for clerical positions, and other considerations which are looked upon by the student as minor matters but which are very important, such as methods of approach, appearance, punctuality, and other factors necessary for maintaining dignity in the office.

THE ORGANIZATION AND FUNCTIONING OF PUPIL OPINION IN HIGH-SCHOOL CONTROL

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Educators and school administrators are today manifesting keen interest in the subject of citizenship in a democracy and are pertinently raising the question of what part our high schools, colleges, and universities are playing in educating and training for such citizenship. Honor systems in some of our universities and schemes of "pupil co-operation" in a number of our high schools are being experimented with and worked out and are, in part, an answer to this question. However, since the high schools deal with pupils in the plastic stage of early adolescence, the greater is the responsibility which rests on them in assuming the task of educating for citizenship in a democracy. Hence, in order to discover what high-school principals are actually doing along this line and what they think of the possibilities of such education and training, the writer recently submitted a questionnaire to the principals of two hundred high schools in Michigan, Ohio, Indiana, and Illinois, located in cities ranging in population from 2,500 to 1,000,000. In addition, a more thorough study was made of the high school in Holland, Michigan, and of the Central High School in Evansville, Indiana. The tables here presented embody the replies to the questionnaire received from 152 high schools, including those in Holland and Evansville.

Table I shows that the largest group of high schools, 47 of 152, allows pupil participation in control only in the case of the extra-curriculum activities, such as athletics, debating, and dramatics. The next largest group, 31 schools, permits the pupils to help keep order in the corridors and to participate in the control of the extra-curriculum activities. Either pupil monitors are substituted for teacher monitors in the corridors or there are no monitors at all. Twenty high schools allow the pupils to control themselves in the study room and to direct discussion in the classroom and, in addi-

tion, permit them to participate in the control of the corridors and the extra-curriculum activities. In the study room, pupils who have been elected by their own number or appointed by the teacher take charge with complete responsibility to keep order. In the classroom, the discussion may be conducted either by the teacher or by pupil leaders chosen by the members of the class and approved by the

TABLE I

NUMBER OF HIGH SCHOOLS WHICH ALLOW PUPILS TO PARTICIPATE IN THE CONTROL OF VARIOUS ACTIVITIES

Activity	Number of High Schools
a) Classroom	1
b) Study room	0
c) Examinations	0
d) Corridors	0
e) Extra-curriculum activities	47
ab) Classroom and study room	1
be) Study room and extra-curriculum activities	5
de) Corridors and extra-curriculum activities	31
ade) Classroom, corridors, and extra-curriculum activities	7
bce) Study room, examinations, and extra-curriculum activities	1
bde) Study room, corridors, and extra-curriculum activities	12
abde) Classroom, study room, corridors, and extra-curriculum activities	20
bcde) Study room, examinations, corridors, and extra-curriculum activities	1
abcde) Classroom, study room, examinations, corridors, and extra-curriculum activities	4
Total	130
Number of high schools having no pupil participation in school control	22
Grand total	152

teacher. When pupil leaders conduct the discussions, the teacher may or may not be present. This is the plan followed in the Central High School in Evansville, Indiana, and in the high school in Holland, Michigan.

Of the schools replying to the questionnaire, only four permit the pupils to have a share in the control of every department of school life, curricular as well as extra-curriculum. It is significant to note that these four schools and only two others put the pupils on

their honor during examination periods. All the rest have teachers on guard while examinations are being written. This fact would indicate that in only these six schools is the sentiment for honesty and justice strong enough among the pupils to warrant the teachers to give them the right to control themselves during examinations. This, then, is one of the real tests of pupil responsibility in sharing the government of the school.

Twenty-two high schools report no permanent pupil organizations for sharing school control; two of this number state that occasionally pupils are called upon to aid the faculty in solving certain common problems of the school.

Table II shows that thirty-one high schools have student councils. This is the form of organization most popular in expressing and directing pupil opinion in participation in high-school management. Seventeen schools have both the student council and committees, while fourteen have simply committees. Athletic, social, and literary clubs are found in thirteen schools for the carrying on of extra-curriculum activities. Of the five high schools which reported some phase of city-government organization, the high school in Holland, Michigan, has the most complete form. The mayor, chief of police, clerk, treasurer, and twelve aldermen are elected by the members of the student body. These officers comprise the Student Council. The council acts in both a legislative capacity and a judicial capacity, the mayor being the chief executive officer. The mayor is assisted by the chief of police, who appoints four assistants. First offenses are tried by a private court, consisting of the mayor, the chief of police, and the principal. If there is a second or a more serious offense, the council acts as a jury and tries the case. All pupils as well as all officers may report violators of the law. Any pupil may bring a complaint to an officer. The officer notifies the chief of police. If the chief of police thinks the complaint justifiable, he serves a warrant on the accused, ordering him to appear before the court at a specified time. The pupils do not hesitate to report violators of the law, and they do not regard this as tattling. One method of punishing an offender is to compel him to appear before the whole student body and faculty and publicly apologize for the offense. It is reported that every case which has been handled

in this way has been satisfactorily settled. The pupils are interested not so much in what the teachers think but in what their fellows and equals think.

TABLE II

NUMBER OF HIGH SCHOOLS PERMITTING PUPIL PARTICIPATION WHICH HAVE VARIOUS FORMS OF CONTROL

Form of Control	Number of High Schools
a) Student council	31
b) Committees	14
c) Judge and police officials	0
d) Athletic, social, and literary clubs	13
e) City government	0
f) State government	0
g) Other forms	2
ab) Student council and committees	17
ac) Student council and police	1
ad) Student council and clubs	7
ag) Student council and some other form	2
bd) Committees and clubs	11
abc) Student council, committees, and police	2
abd) Student council, committees, and clubs	13
abe) Student council, committees, and city government	1
abg) Student council, committees, and some other form	2
acd) Student council, police, and clubs	3
bdf) Committees, clubs, and state government	1
bdg) Committees, clubs, and some other form	1
abcd) Student council, committees, police, and clubs	3
abcf) Student council, committees, police, and state government	1
abdg) Student council, committees, clubs, and some other form	1
acde) Student council, police, clubs, and city government	1
abcde) Student council, committees, police, clubs, and city government	2
abcdef) Student council, committees, police, clubs, city government, and state government	1
Total	130
Number of high schools having no pupil participation in school control	22
Grand total	152

Furthermore, great enthusiasm is shown in the campaigns for the election of pupil officers. The entire student body is divided into

two rival groups similar to our two major political parties. This tends to stimulate a healthy rivalry, which aids in the selection of the best pupils as candidates for the offices, with a further weeding out in the final election. This gives potential leaders an opportunity to develop interest in matters of politics and government, since each individual feels some responsibility for the way in which the government is being carried on.

Besides the Student Council, acting as a legislative and judicial body, the Holland High School has various boards, the members of which are appointed by the mayor. These boards perform duties of an administrative nature. There is the Board for Athletics, the Board for Oratory and Debating, the Welfare Board, the Police Board, the Park Board, etc. Members of the student body desiring

TABLE III

REPLIES TO QUESTION, "IS PUPIL PARTICIPATION FUNCTIONING SUCCESSFULLY?"

Reply	Number of High Schools
Yes	70
No	7
No answer	75
Total	152

a change in school procedure may make their wishes known to the members of the Student Council through their own representative aldermen. The council, speaking for the pupils, may then voice its opinion to the principal and faculty, who reserve the right to veto or approve the proposed change. This shows how relatively simple mechanisms, such as are found in the Holland High School, may be used to organize and express pupil opinion, which can co-operate with faculty opinion in the control of school activities.

Table III shows whether the attitude of the principals who are trying out some plan of pupil participation is favorable or unfavorable to the plan. Of 152 principals, 70, as opposed to 7, or almost 50 per cent, feel that whatever schemes in their schools are in operation are achieving what they are expected to achieve. There are, then, benefits from even a partial plan of pupil control. If this participation were extended as the preparation and the experience of the

pupils in each particular case warrant, we might anticipate still better results.

Seventy-five principals, however, were undecided whether to answer "Yes" or "No." In a large number of these cases very incomplete plans of pupil participation may be in operation; the systems may be working indifferently or may be in their infancy, and thus it may be too early to tell whether they are successful. Some may be working badly; yet the principals will hesitate to say so lest it will reflect upon them.

Sixty principals (Table IV) think that pupil participation in school control tends to stimulate and develop a sense of responsibility in the pupils, while forty-eight principals believe that participation in high-school management does not bring out a large degree of responsibility. What does this sharp divergence of opinion indicate? J. J. Riemersma, principal of the Holland High School, in which a system of pupil co-operation has been in successful operation for the past thirteen years, said to the writer on inquiry, "Give the pupils responsibility, and they will live up to it every time." L. A. Froh, instructor in the University High School, University of Michigan, places large responsibilities on the pupils in his classes, puts them on their honor, and trusts them implicitly; and they are responding to this trust. They take the initiative in solving their own problems of discipline and conduct class discussions in the absence of the instructor. The pupils in the Central High School in Evansville, Indiana, assume large responsibilities in every department of school life. A system of pupil participation has been functioning there successfully since 1917. On April 30, 1924, the pupils of this high school conducted school for the whole day with neither teachers nor principal present. Visitors pronounced this day a real test and a decided success.

It seems, then, that the reason why the forty-eight principals are dubious with respect to intrusting pupils with responsibility in school control lies in the fact that they either have given the pupils too much responsibility without proper preparation or have not gone far enough in the delegation of authority and responsibility in the control of school activities. Pupils must be educated to want responsibility and must be prepared to exercise responsibility. Jean

TABLE IV

NUMBER OF HIGH SCHOOLS IN WHICH PUPIL PARTICIPATION IN SOME FORM TENDS TO STIMULATE AND DEVELOP CERTAIN VALUES

	Number of High Schools
Responsibility:	
Yes	60
No	48
No answer or undecided	44
Total	152
Character:	
Yes	87
No	10
No answer or undecided	55
Total	152
Scholarship:	
Yes	40
No	27
No answer or undecided	85
Total	152
Instruction:	
Yes	29
No	29
No answer or undecided	94
Total	152
Morale:	
Yes	81
No	15
No answer or undecided	56
Total	152
Co-operation:	
Yes	86
No	9
No answer or undecided	57
Total	152
Citizenship:	
Yes	86
No	7
No answer or undecided	59
Total	152

Hamilton, dean of women at the University of Michigan, thinks that young women have the capacity to govern themselves but that the desire for self-government has to be awakened.

The attitude of the principals toward the development of character seems, on the whole, to be more generous than their attitude toward the development of responsibility. Eighty-seven principals think that pupil participation has a good influence on character, but only sixty feel that it makes for a sense of responsibility. Why is there this discrepancy? Does not the term "character" include responsibility? Do we apply the term to anyone who lacks a sense of responsibility? The term is indeed an ambiguous one, and the results seem to indicate that responsibility is regarded in a more dynamic sense than character.

Only forty as opposed to twenty-seven of the principals in whose schools there is some form of pupil participation think that such participation improves scholarship. The attitude of the pupils toward their studies would not be changed a great deal through participation simply in extra-curriculum activities; participation must be extended to all activities before a marked change in attitude will result. This may account for the small number of principals believing the new plan to have a good influence on scholarship.

It must be remembered, also, that many pupil-participation plans are in their infancy and have not been in operation long enough in most instances to have provided opportunity for the development of the new stimuli in the new environment. Furthermore, it may be suggested that the courses of study are still too formal and are not well adapted to individual needs and the demands of the social environment. At any rate, improvement in scholarship is secondary to the awakening of a sense of responsibility and self-control, but, if the latter are really developed under the new circumstances, it would seem that they would be accompanied by a more serious attitude toward the subjects studied.

We find twenty-nine principals saying that there is an improvement in the grade of instruction and an equal number saying that there is no such improvement. The neutral attitude toward this phase of the work may be due to a lack of proper standards by which to measure instruction under the new system and adequately to

compare it with instruction under the old plan. In many cases the principal approaches the teacher with the same attitude he had when the school was operating under the old autocratic system. The teaching in connection with a plan of pupil participation must be different from the teaching prevailing in the old order. The teacher is now a guide, being more in the background than before, and the pupils must be given greater opportunity to take the initiative in thinking, in developing plans for discussion, and in solving their own problems.

According to eighty-one principals, a better morale is stimulated by pupil participation. The pupils are more contented; they are less restless and rebellious when intrusted with a share of the responsibility in managing school affairs. They feel an enhanced self-respect and a new dignity peculiar to adolescence.

Eighty-six principals think that a spirit of co-operation tends to follow as a result of placing responsibilities on pupils. It brings about a better attitude between teacher and pupil. The traditional feeling of antagonism gradually gives way to a constructive attitude of friendship and co-operation when the pupil begins to realize what the teacher's job really means.

According to eighty-six principals, pupil participation in high-school control tends to produce better citizenship in a democracy by creating an environment for the development of personal and social responsibility, self-control, initiative, co-operation, interest in politics and government, and character. Principal J. J. Riemersma, of the Holland High School, thinks that the actual participation of the pupils as a mass in the election of their officers, the assumption of certain school duties by the officers, and the interest taken in watching these officers perform their duties tend to create habits and interests which carry over into adult life.

It may be suggested that the reasons for the failure of a large number of the principals to express their judgments on the values developed are the abstract character of the things to be measured, the lack of definite criteria by which to measure results, and the aversion on the part of some to give opinions on questions for which the evidence is vague or entirely lacking. It must be remembered

that twenty-two high schools of the 152 reporting have no data to give with respect to this matter.

Table V shows that propaganda alone was used by thirty-one principals in the introduction of pupil-participation schemes in their schools. This would indicate that the largest group of principals doubts the efficacy of appealing to the reason of the pupils and of

TABLE V

NUMBER OF HIGH SCHOOLS HAVING PUPIL PARTICIPATION WHICH USED VARIOUS METHODS IN INTRODUCING THE PLAN

Method	Number of High Schools
a) Coercion	0
b) Persuasion	2
c) Logical argument	14
d) Advertising and publicity	1
e) Propaganda	31
ab) Coercion and persuasion	1
ae) Coercion and propaganda	1
bc) Persuasion and argument	3
be) Persuasion and propaganda	5
cd) Argument and publicity	4
ce) Argument and propaganda	12
de) Publicity and propaganda	7
bce) Persuasion, argument, and propaganda	5
bde) Persuasion, publicity, and propaganda	1
cde) Argument, publicity, and propaganda	12
abce) Coercion, persuasion, argument, and propaganda	1
bcde) Persuasion, argument, publicity, and propaganda	3
f) Other	2
g) No answer	47
Total	152

taking them into their confidence, that the principals in this group control the pupils rather by presenting the arguments for their side in such a way as to appeal to sentiments and emotions. Fourteen principals, however, believe in presenting the plan to the pupils by calling attention to both its advantages and its weaknesses, thereby more fully preparing the minds of the pupils for the problems they must face in coping with the new system. Twelve principals believe

in using both argument and propaganda, in appealing both to reason and to the emotions. If the possibilities and the weaknesses of the plan are fully explained to the pupils by the teachers and the principal, this middle ground may be the most effective. Enthusiasm must be aroused for the plan if it is to enlist the best co-operative efforts of faculty and pupils. The instinctive impulses must be linked up to the ideals involved in any pupil-participation scheme if the ideals are to be achieved. Twelve principals believe that adding publicity to the program of inauguration is a good thing if the co-operation of the parents and the community at large is to be enlisted.

In the Central High School in Evansville, Indiana, the initiative in launching a scheme of pupil co-operation was taken in 1917 by thirty-five Seniors who petitioned the principal to allow them to form an honor room, a session room without a teacher in charge. The petition was granted after the pupils had signed a pledge to fulfil certain conditions. A little later a Board of Control was organized, composed of six members, three teachers and three pupils. In 1918 two more honor rooms were created at the request of the pupils in the senior class of that year. In 1920 the student body as a whole voted to adopt pupil co-operation, and today complete pupil participation in the control of school activities is permitted. Thus, we see how from small beginnings a scheme of pupil co-operation grows step by step until the pupils are finally prepared to accept responsibility in the control of all the activities of the school.

When twenty-two schools are subtracted from the forty-seven not answering, we have twenty-five schools neglecting to indicate the method used in introducing pupil participation. This number may be accounted for either by the fact that the plan was introduced by some previous principal or by the fact that the plan grew up gradually along with other modes of procedure in the school.

Table VI gives the reasons for the failure of different forms of pupil participation to operate as expected. Thirty-three high schools apparently are not satisfied with the way in which their particular systems are working. Nine principals think that pupils of high-school age are too young and irresponsible to be given a large share in school control. This seems to be but an attitude of mind which

calls forth the thing contemplated. Are not those schools in which it is functioning successfully dealing with the same "immature youth"? The chances are that these principals expect the pupils to govern themselves without making mistakes or without preparation or guidance on the part of the faculty. Five principals believe that the pupils were not fully prepared to operate the new scheme. A number of comments included in the replies to the questionnaire

TABLE VI

NUMBER OF HIGH SCHOOLS IN WHICH PUPIL PARTICIPATION IS NOT FUNCTIONING PROPERLY BECAUSE OF VARIOUS REASONS

Reason	Number of High Schools
a) Lack of faculty co-operation	4
b) Pupils not fully prepared to operate plan	5
c) Scheme too complex	0
d) Parents unsympathetic with plan	3
e) Pupils too young and irresponsible	9
f) Other	2
ab) Lack of faculty co-operation and pupil preparation	2
ad) Lack of faculty and parent co-operation	1
be) Unpreparedness of pupils and youth of pupils	3
de) Lack of co-operation of parents and youth of pupils	1
abd) Lack of faculty co-operation, unpreparedness of pupils, and lack of co-operation of parents	1
abe) Lack of faculty co-operation, unpreparedness of pupils, and youth of pupils	1
bce) Unpreparedness of pupils, scheme too complex, and youth of pupils	1
g) No answer	119
Total	152

make it clear that preparation for the change from the old system to the new is most essential.

Lack of faculty co-operation may be a more fruitful cause of failure than indications in the questionnaire would lead us to suppose. Some principals would naturally hesitate to name this as a cause since it might reflect on their ability as a leader. Much depends on the principal for the success of such a plan. It is not wise to present the plan to the student body until every member of the faculty is interested in it. Autocratic habits and methods of teach-

ing must give way to more democratic attitudes and practices which involve a sharing of authority, responsibilities, and opportunities with the pupils.

In this case there are 119 schools not reporting. Of this number, twenty-two have no plan of pupil co-operation; as shown in Table III, seventy report that their schemes are functioning as well as can be expected. In the twenty-seven schools unaccounted for the principal may have been aware that the system in general was not functioning properly, but he did not make an effort to define the difficulty and trace it to its source.

Only those principals whose schools were without a plan of pupil co-operation were asked to indicate whether or not a demand for

TABLE VII

REPLIES TO QUESTION, "IS THERE A DEMAND AMONG THE PUPILS IN YOUR SCHOOL FOR PUPIL PARTICIPATION IN SCHOOL CONTROL?"

Reply	Number of High Schools
Yes	12
No	22
No answer	118
Total	152

such a plan existed among their pupils. The majority of the principals seem to have interpreted the question in this way, as is shown by the fact that 118 principals did not answer the question (Table VII). However, there were twenty-six principals of high schools having pupil participation in partial form who answered the question. Of this number, ten point out a demand for increased participation of pupils in school control, while sixteen deny the existence of any demand for increased pupil authority. Furthermore, only two schools without any co-operative scheme desire the introduction of some plan, while six schools in the same class vote in the negative.

Of the 118 schools not reporting, fourteen have no form of pupil control. Thus, 104 principals appear to have thought that no answer was called for, since they had already indicated some plan in operation. Ten principals having partial pupil participation, however,

are so enthusiastic about their various plans that they wish to indicate that they intend to give increased authority and powers to their pupils. On the other hand, the sixteen principals having some form of pupil control, largely in extra-curriculum activities, who answer "No" show their dissatisfaction with whatever plans of participation are now in operation in their schools. The reasons for this attitude may be inferred from a study of Table VI.

Of the high schools without any form of pupil control, two report a demand for such control, while six deny the existence of any demand. This shows that in this class of high schools conservatism is stronger than progressivism. It shows that the principals in many such cases reflect the attitude of the people in the communities in which they reside. In some instances, as is shown by reference to the two cases cited, demand may originate among the pupils, who may be stimulated by contact with pupils in high schools in which some system of organizing pupil opinion is in operation. On the other hand, in spite of an apparent lack of demand on the part of pupils for pupil participation, a number of principals state that they intend to take the initiative in proposing some plan suitable to the needs of their schools, educate the pupils to want it, and train them to carry more and more responsibility as experience and judgment dictate.

In this analysis of the conditions in 152 schools in the Central West, it is seen that a start has been made in introducing and operating schemes of pupil co-operation in high-school control, designed to develop in pupils those qualities most essential to citizenship in a democracy. We have seen that those schools providing the pupils with the most complete participation in responsibilities are most successful in developing these qualities. As the high schools in Holland, Michigan, and Evansville, Indiana, are doing, so other high schools can do by giving the pupils more and more the right to share in the control of both curricular and extra-curriculum activities, taking care to work out a plan which is suited to the particular demands of their respective school communities.

DIRECTED STUDY: MATERIALS AND MEANS

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There is perhaps no mode of schoolroom procedure that is more misunderstood than is supervised or directed study. Practitioners and critics alike are suffering from such misunderstanding. In writing to one of the authors of this article, a dean of an Ohio college made the following remarks about a girl in that college: "She slaved in Latin but all to little purpose. The whole trouble was that she had actually no foundation in Latin. She had had supervised study [in high school], and I judge that the teacher did all the real work and gave marks to the pupils." An investigation showed that such had probably been the case. Approximately 50 per cent of all the Latin marks issued in the particular high school for a period of four years preceding the writing of the letter were A or B. The semester marks in Latin given to the girl in question were 95, 96, 92, 94—A, A, A, A. In this high school there had been a system of so-called "supervised study." After receiving high marks in Latin in high school, the girl had failed in the subject in college. Supervised study was blamed, but the procedure called "supervised study" had been anything but supervised study.

"Supervised study . . . . is . . . . the supervision of individual pupils who are studying silently at their desks."[1] It is in this fundamental conception of supervised study that many well-intentioned teachers and scholars go astray. They fail to include the words "individual" and "silently" in their notions of this method. Consequently, in their brand of "supervised study" they have simply "the supervision of a discussion by the class of a new assignment."[2] In

[1] Samuel Chester Parker, *Methods of Teaching in High Schools*, p. 392. Boston: Ginn & Co., 1915.

[2] *Ibid.*

such procedure the pupils are "studying" together, with the teacher leading the way. She is talking much, asking many questions, spreading the assignment throughout the study period instead of throughout the preceding recitation as she should. She is trying to get the whole class to think as one mind. To substitute true supervision of individual pupils studying silently at their desks for this faulty procedure, "which in recent years has been designated as the study lesson,"[1] it is necessary to develop means of directing study. It is for the purpose of pointing out some of these that this article is written.

Obviously, the possibility of a teacher assisting in directing the study of a pupil depends on the teacher's ability to gain an insight into the pupil's thought processes. Obviously, again, a teacher cannot tell what is going on in a pupil's mind except through the expression that the pupil gives to his thoughts. There must be some objective and tangible material which the teacher can use as a medium between her own mind and that of the individual pupil whose silent study she is trying to direct. In algebra or arithmetic, for example, the pupil's own work in plain view on his desk gives the teacher an avenue of approach. The problems on the pupil's paper are evidence of whether he is working. They are evidence also of whether he is proceeding accurately and correctly. By glancing over the work of an individual pupil who is studying silently at his desk, a teacher can get her cue for directing his efforts. A pupil may be going through all the motions of study and from external appearances be studying diligently, but, without objective and tangible evidence of study, the teacher cannot tell whether the pupil's mind is on his work; even if she could, there would still be no way for her to diagnose the pupil's difficulties.

Supervised or directed study without objective evidence of study is destined to fall short of its ideal. Often it drifts backward to former practices; the recitation periods are lengthened, and little or no time is left for study under the direction of the classroom teacher. Even where the proper balance between recitation and directed study is religiously maintained, the procedure cannot rise to its full

[1] *Ibid.*

height if there is not this objective evidence of study. It will most probably become one of the four following things or a combination of some or all of them: (1) Policed study—the teacher will be present to see that the children do not molest one another or waste their own time in indolence. (2) The teacher will assist by answering the questions of those pupils who are bold enough and bright enough to ask them. (3) The teacher will make herself a nuisance by passing from individual to individual and disturbing the pupils with such questions as "What can I do for you?" and "Are you having any trouble?" (4) The wide-open method, designated in an earlier paragraph as the "study lesson."

In truly directed study, that procedure in which the teacher supervises the individual pupils studying silently at their desks, there are three criteria for determining the activity of the teacher: (1) She should get around among all the pupils in order to see what each is doing. (2) She should make it a special point to give careful supervision to those pupils who need it most. (3) She should attend to those pupils who signify by raising their hands that they want direction. In the last case the teacher must be careful lest some pupil acquire the habit of leaning on her too much. All three of these types of activity are essential. Often, however, the first two types are neglected. Where there is no objective evidence of study in plain view on the pupils' desks, the first two types of activity cannot be other than neglected. To omit these activities is to take the heart out of directed study, for it is often only the bright, the bold, the impulsive, or the lazy and dependent pupils who take the initiative in asking for direction from the teacher. Those in most need of help often do not ask for it, either because they are timid or because they are not aware that direction is needed. Therefore, there must be some kind of objective means of directing study. Truly directed study depends on it.

In an effort to find objective materials for directing study, the authors created one device and discovered a number of others. The device created is the objectified assignment sheet. Discussion and examples of this will be reserved until the last. The various other devices can be presented most conveniently and clearly in outline form as follows:

Objectified Materials for Directing Study Other than Assignment Sheets

I. Assignments which, by the nature of the subject or type of work to be done, require the writing out of work
   1. Mathematics problems
   2. Translations in foreign languages
   3. Mathematical problems based on facts in physics, economics, etc.
   4. Written answers to questions found at ends of chapters in history, civics, etc.
   5. Diagramming sentences in grammar
   6. Writing compositions
   7. Assignments for creative work, such as the following: "Write three original sentences illustrating each of the following kinds of verbs: transitive active, transitive passive, intransitive."
   8. Writing out exercises in textbooks
   9. Paraphrasing in own writing, making synopses, condensing paragraphs into single sentences, etc.

II. Standard drill and test exercises. These are becoming very common in practically all subjects of study.

III. Marking of own books by pupils
   1. Underlining topic sentences
   2. Underlining especially humorous passages
   3. Underlining certain figures of speech
   4. Writing in margins of books—
      a) Problems or questions that occur to pupils
      b) Criticisms
      c) Illustrations and examples
      d) Correlated material

IV. Laboratory work
   1. Controlled experiments in physics, chemistry, etc.
   2. Much of the ordinary procedure in non-academic subjects, such as home economics, manual training, typewriting, bookkeeping, etc.
   3. Field trips
   4. Other so-called "laboratory" work
      a) Visual-education work
      b) Map study
      c) Music

V. Notebook work (all of which should be done under teacher's direction, the notebooks being kept in the schoolroom)
   1. Outlining
   2. Map work
   3. Making drawings of specimens, apparatus, etc.
   4. Laboratory notes
   5. Lecture notes

VI. Projects (either extensive or limited)
   1. Projects in home economics and other non-academic subjects
   2. Themes in history, civics, literature, etc.
   3. Making posters
   4. Dramatizations
   5. School papers
   6. Researches
   7. Scenarios
   8. Making collections of bugs, rocks, plants, etc.

VII. Applications and demonstrations by pupils
   1. Demonstrations in music, public speaking, science, etc.
   2. Classes in English usage
   3. An election or mock trial

OBJECTIFIED ASSIGNMENT SHEETS

In this discussion it is difficult, and in actual practice quite undesirable, to disassociate directed study and assignments. The assignment is the basis of directed study; if it provides for the doing of work of an objective nature, directed study is possible; otherwise, directed study is almost impossible. The objectified assignment sheet is one of the best, if not the very best, of devices for putting before the pupils in any class an assignment that will serve as the basis for truly directed study. It is designed to do for any subject what problems do for arithmetic or algebra.

The objectified assignment sheet can be produced by any of a number of duplicating devices so that each member of a class has a copy of his own. It is apparent at the outset that by this means much time will be saved in making assignments and that all pupils are certain to get each assignment more nearly correct. The sheets are prepared with blanks for the pupils to fill in with their own work. Therefore, since all sheets are printed alike and all blanks appear in the same respective places on all the sheets, the teacher finds it easy to tell at a glance what each pupil is doing, for she knows exactly where to look on each paper for a certain pupil response. As the questions on the sheets are usually of the short-answer type, writing by the pupils and reading by the teacher are reduced to a minimum. The questions are so designed that thorough study of the assigned material is necessary in order to make an answer that can be stated in a few words. The questions raise problems for the pupils, moti-

vate their work, and cover the essential elements of a lesson or a unit of work. Also they can be adapted to the individual differences of pupils.

The following are actual specimens of assignment sheets used in literature, biology, civil government, United States history, and European history. These are typical of many used in one school[1] in the school year 1925–26 in these and other subjects.

"THE BIRDS OF KILLINGWORTH"—LESSON TWO

Review:

Complete each of the following sentences with a word expressing the dominant trait of the character.

1. The squire was _____.
2. The parson was _____.
3. The preceptor was _____.
4. The deacon was _____.

THE PRECEPTOR'S SPEECH

The preceptor's purpose was _____.

He appealed to his audience in these ways:

1. _____
2. _____
3. _____

Identifications:

1. Plato _____
2. David _____
3. A troubadour _____

Explanation of terms:

1. Jargoning _____
2. At random _____
3. Roundelay _____
4. Windrows _____
5. Wardens _____
6. Omnipotence _____
7. Hurdy-gurdies _____
8. Melodious madrigals _____

Figures of speech:

Mark in your book three examples of simile, metaphor, alliteration.

Interpretation:

Prove that you understand the last stanza and that you appreciate it at its true value. Do the same for the gem of thought beginning: "'Tis always

[1] Danville High School, Danville, Indiana.

morning somewhere." (Use the reverse side of the sheet for your response to this question.)

TENNYSON'S "REVENGE"

1. A pinnace is a (bird, message, ship, man).
2. The event of this story occurred about (1300, 1400, 1500, 1600, 1700, 1800).
3. Explain "for the glory of the Lord" in Line 21.
4. Musketeers are (men, weapons, armor).
5. Sir Richard was wounded in the side of the head at about (noon, midnight, morning, sunset).
6. At the end of the fight about _____ of the crew of the Revenge were maimed for life.
7. Explain "lion" in Line 96.
8. Who is meant by "Queen" in Line 101?
9. What part of speech is the word "or" in Line 114?
10. If you were to divide the story into four major divisions, approximately at what places would you indicate the demarcations? Line _____, Line _____, and Line _____.
11. Greenville would not flee because he had _____.
12. The motives that impelled Sir Richard to bravery were _____ and _____.

SECTIONS 232–35, INCLUSIVE, OF "BIOLOGY AND HUMAN LIFE" BY GRUENBERG

1. Distinguish between parasite and host.
2. Name three degrees of food parasitism that exist between the parasite and the host.
   a) _____
   b) _____
   c) _____
3. Give illustrations of—
   a) Compulsory vs. optional parasitism
   b) Complete vs. partial
   c) Permanent vs. temporary
4. Why is the cuckoo truly an illustration of what we mean by the term "parasitism"?
5. Tell the story of the cuckoo.
6. Name three general injuries that a parasite may produce upon a host.
   a) _____
   b) _____
   c) _____
7. Tell what each of the following parasites does to its host.
   a) Mistletoe
   b) Tapeworm
   c) Hookworm
   d) Diphtheria

e) Typhoid
f) Lockjaw
g) Malaria
h) Sleeping-sickness germs
i) Consumption

8. Why is it important to distinguish between the symptoms and the cause of a disease?
9. What lesson should we derive from the study of parasitism?

State Legislatures (Pages 251–58 of Magruder's "American Government in 1923")

1. State legislative bodies are known by various names: (*a*) _____, (*b*) _____, (*c*) _____, (*d*) _____.
2. What name is given to our legislative body?
3. The state legislative body is composed of _____ houses, namely, _____ and _____.
4. Each state has the same number of members in its two houses as any other state (true or false). Give examples as proof: (*a*) _____, (*b*) _____, (*c*) _____.
5. How many members in our state senate? House of representatives?
6. Give three examples of time of meeting of the legislatures in the various states. (*a*) _____, (*b*) _____, (*c*) _____.
7. To which group does our state belong? The governor may call an extra session (true or false).
8. Name two privileges of members of legislatures. (*a*) _____, (*b*) _____. Are there any exceptions to these?
9. Is the salary of the members of each house always the same?
10. According to the Constitution of the United States, what powers are given to the states or to the people?
11. Is the committee system of state legislatures good or bad? Why?
12. Name and discuss offices and officers of a state legislature.

Sections 124, 125, and 126 of Magruder's "American Government in 1923"

Special Courts

1. There are how many special federal courts?
2. The Court of Claims was established in _____ and is composed of _____ judges, who sit in _____.
3. In what court should you seek redress for a breach of contract between yourself and a department of the federal government?
4. If a federal prohibition officer illegally searches your house, can you sue for damages?
5. Appeal from the Court of Claims to the Supreme Court may be made if the amount in controversy exceeds $_____.
6. Courts do not usually give opinions unless actual suits are brought before them. What federal court is an exception to this rule?

7. The Court of Customs Appeals sits at Washington or _____.

8. On what condition can an appeal be made from the Court of Customs Appeals to the Supreme Court?

JUDGES

1. All federal judges are appointed by _____ and confirmed by _____ for a term of _____ except judges for the territories, who are appointed for a term of _____.

2. Removal of federal judges by impeachment has occurred _____ times.

3. Federal judges may retire on (full, one-half, part, one-fourth) salary at the age of _____, provided they have served for _____ years.

4. The above provision was fixed by _____.

5. Why do you suppose this was done?

COURT OFFICIALS

1. What federal officer corresponds to the county prosecuting attorney?

2. How does he get his office?

3. What federal officers correspond to the county sheriffs?

4. Their term is for _____ years.

5. Who supervises their work?

6. What federal officer corresponds to the county clerk?

7. The district court commissioners correspond to what local officers?

"THE RISE OF NEW POLITICAL PARTIES" IN FITE'S "HISTORY OF THE UNITED STATES," PAGES 189–92

1. The two political parties in the United States immediately before 1789 were the _____ and the _____, who stood for _____ and _____, respectively.

2. Give three evidences that Washington himself was aristocratic.

3. Two prominent men of Washington's time who openly declared for aristocracy were _____ and _____.

4. The _____ party was dominant in the state of Connecticut.

5. Under the aristocratic rule of the United States only about 1/ of the men throughout the country could vote.

6. Complete the following outline of the two political parties immediately after 1789.

	Federalist	Republican
Leader		
Constituency		
Attitude on leading issues: 1.		
2.		
3.		

7. Political differences in 1789 were (more intense, about the same, less intense) than today.

8. In the election of 1792, _____ was elected President, but the _____ party got control of the House of Representatives.

GENERAL HISTORY (ELSON, "MODERN TIMES AND LIVING PAST," SECTIONS 338–45, INCLUSIVE, PAGES 391–98)

1. What was the reaction to the beheading of Charles I?

2. What are "regicides"?

3. Against what peoples did Cromwell successfully lead his army or direct his military forces? _____, _____, _____, _____.

4. How was the Long Parliament finally brought to an end?

5. How did Cromwell compare in his power with a king? Our President?

6. Can you think of any present-day men who correspond somewhat to Cromwell?

7. Cromwell's power lay in his _____.

8. What caused Cromwell's downfall?

9. What was the occasion for the end of the Commonwealth?

10. Cromwell was similar to the great Swedish king, _____, in these respects: _____, _____, _____, _____, _____.

11. In what respect was Cromwell ahead of his time?

12. Charles II was able to get along amicably with Parliament because _____.

13. What was the reaction against the rigid Puritanism of the Commonwealth?

14. Charles II was affiliated with the _____ church. What treatment was given adherents of other sects? What were some of the others? _____, _____, _____, _____.

15. What was the permanent gain of the Civil War and the Commonwealth?

16. What was the Habeas Corpus? When enacted?

17. A successful war against _____ during the reign of Charles II gave England possession of what part of America?

18. _____ and _____ were two political parties that grew out of differences of opinion with regard to _____. The _____ supported larger powers for Parliament and liberties for the people.

19. James II was _____ in religious faith, but his daughters and sons-in-law were _____.

20. Whom did James II more nearly resemble, his father or his brother?

21. The occasion for the bloodless revolution of 1688 was _____ and _____.

22. What hereditary right did William and Mary have to the throne of England?

ELSON, "MODERN TIMES AND LIVING PAST," PAGES 250–55

1. For several hundred years after Charlemagne's time Europe was full of _____ and _____.

2. The next prominent ruler was _____.

3. His son _____ began building the _____ empire.

4. The achievements of Otto in the order they came were: (*a*) _____ _____; (*b*) _____; (*c*) _____; (*d*) _____

5. Otto defeated the Huns at _____ in the year _____.

6. The next great figure after Otto the Great was _____, who had formerly been known as _____.

7. He made three big reforms in the church as follows: (*a*) _____ _____; (*b*) _____; (*c*) _____.

8. Excommunication is _____.

9. The most trouble Gregory had was with _____.

10. Gregory at first succeeded in forcing _____ to beg his pardon at the Castle of _____ in Italy.

11. The dispute over investitures was finally settled by the _____ in the year _____. It was settled as follows: _____.

12. The series of quarrels as noted above finally ended by a complete triumph of the _____ over the _____.

13. In the fourteenth and fifteenth centuries came a change. The people gave the spiritual leadership to the _____, but in secular matters they turned to their _____.

Experience and evolution will doubtless improve the quality of assignment sheets and also the technique of using them. At present, their chief value lies in their usefulness as objective evidence of what pupils are doing in their study periods. They enable a teacher to diagnose the difficulties of the individual pupils whose silent study she is trying to direct. Incidentally, they can be used for other purposes, such as a basis for marks and periodic reports and for review and test material. These things, however, are by-products. Their main purpose, the same as that of other means of directing study, is to elevate the work above the level of pseudo-supervised study and to provide for the supervision of individual pupils studying silently at their desks.

THE CONTINUITY TEST IN HISTORY-TEACHING

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One of the major obstacles to progress in the testing movement so far as the subjects of the high-school curriculum are concerned is the lack of formulated, generally accepted aims in the teaching of these subjects. This obstacle presents itself to the history teacher as well as to teachers in other fields, but there is one aim of history-teaching which is so generally recognized as valid that we may well test its attainment if some satisfactory method of doing so may be devised. In an article entitled, "History for History's Sake," H. C. Hill said, "True historical mindedness . . . . includes a realization of the continuity of events, of development . . . . of how things came to be what they are."[1] A survey of the literature dealing with history-teaching seems to demonstrate that this "cause and effect relationship" of which Hill wrote, is generally accepted as a valid aim in teaching by the great body of history teachers. Since this is true, the problem is: Can the comprehension of continuity in history be tested?

Almost as long as history teachers have taught, there has been some attempt to test the sense of continuity, but, for the most part, the attempt has taken the form of testing for knowledge of the dates of some given section of the past. Unfortunately, the dates of history do not comprise the whole or even a large part of the sense of development which we are trying to test. One may know one hundred or two hundred of the most important dates in American history and yet not understand the growth of a single American institution or the trend of any national movement. Not dates but events have vital connection with one another. The old *memoriter* test of knowledge of dates, therefore, does not measure adequately the apprehension of continuity. A test in somewhat restricted use to-

[1] H. C. Hill, "History for History's Sake," *Historical Outlook*, XII (December, 1921), 313.

today, which has been the subject of recent experimentation in the history work of the University High School of the University of Chicago, is the "arrangement test," better called the "continuity test." Van Wagenen uses it in his standard informational scales in American history, and Kepner, writing of it, says, "One is impressed by the method used by Van Wagenen for the testing of the chronological sense."[1] In form, the test is very simple, consisting only of a number of historical items listed in confused order, which are to be numbered in the order of their occurrence. An example of such a test follows.

THE DEVELOPMENT OF NATIONALITY

Number the following events in the order of their occurrence:
The beginning of the Crimean War
The establishment of the German Empire
Prussia and Austria's war on Denmark
The coup d'état of Napoleon III
The beginning of the *Zollverein*
The establishment of the Second French Republic
The beginning of the Franco-Prussian War
The Seven Weeks' War
The establishment of the Kingdom of Italy

Such a test has the advantage of being easily and quickly administered. Its construction and its scoring, however, are the factors on which its success or failure depends. In order to measure up to its possibilities, the test must be constructed in such a way as to meet certain fundamental requirements.

The first of these requirements relates to the length of the test. Experience seems to show that not more than from eight to twelve items should be included; Van Wagenen uses only seven. A longer test takes a proportionately longer time for completion and seems to confuse the pupil needlessly. For reasons to be explained later in connection with the scoring of the test, it has been found best to use a test of nine items.

The second requirement deals with the type of items to be used in the test. Each item must be distinct and have a definite location as to time; no two items can be allowed to overlap in any way con-

[1] Paul Tyler Kepner, "A Survey of the Test Movement in History," *Journal of Educational Research*, VII (April, 1923), 319.

fusing to the time or development sense. For instance, it would be unfair to include "The Civil War" and "The Emancipation Proclamation" in one test, for they overlap in time; neither would it be fair to include "The Battle of Gettysburg" and "The fall of Vicksburg" in one test for the same obvious reason. On the other hand, each item must have a distinct "cause-and-effect" relation to the other items used if the test is to be an adequate test of continuity. If one is testing "The Slavery Controversy," no item can be included which does not have a direct topical relation to that subject. In a continuity test on "The Growth of Democracy in the United States" one might legitimately include such items as "The adoption of the Constitution," "The passage of the Fourteenth Amendment," and

TABLE I

Item	Correct Numbering	Pupil's Numbering
1	4	3
2	9	8
3	6	5
4	3	2
5	1	9
6	2	1
7	8	7
8	7	6
9	5	4

"The establishment of woman suffrage," but one could not include items inherently connected only with the tariff, the construction of the Panama Canal, or Napoleon's attempt to found a Mexican empire.

Another difficulty in the use of the continuity test lies in the method of scoring. Various methods have been used, with unsatisfactory results for the most part. One of the first of these methods is the simple procedure of counting as errors all misplacements, that is, misnumberings. Thus, if the pupil's marking of the test on "The Development of Nationality" was as shown in Table I, his score would be 0. Analysis reveals the fact that the pupil knew the correct position of each item except the first ("The beginning of the *Zollverein*"); his placing of that one item last instead of first caused the misnumbering of the complete set of items, resulting in inaccuracy and injustice under this method of scoring.

Another method is that proposed by Van Wagenen and modified somewhat by Brinkley.

A key is laid beside the pupil's answer and the sum of the difference (ΣD) between the correct ranking and the ranking given by the pupil found. A score of 3, 2, 1, or 0 is given.

If ΣD equals 0, the score is 3.
If ΣD equals 2, the score is 2.
If ΣD equals 3 or 4, the score is 1.
If ΣD equals 5 or more, the score is 0.[1]

Without going farther into an explanation of the method, which is certainly better than the preceding one, we see readily that it has one weakness. It does not take into consideration all individual variations but classifies all pupils taking the test into four groups, ignoring variations within these groups.

It would seem desirable, then, to suggest some different method of scoring. In the evaluation of such a method, certain standards may be established to avoid the fallacies observed in other methods. First, the method of scoring must be accurate; that is, it must measure the relation of each item in the test to all other items. In a five-item test, for example, 1 must be in its proper relation to 2, 3, 4, and 5 to be correct; if 1 is placed between 3 and 4, the score must show it to be in incorrect relation to 2 and 3 but in correct relation to 4 and 5. Second, a successful scoring method must produce accurate individual scores and not an approximate group score. This is of essential importance if the test is to be used for diagnostic purposes. Third, the method must be rapid and not elaborate.

The first step in discovering such a method is to ascertain the number of relations involved in a given test. Let us take a nine-item test in which the correct numbering is 1, 2, 3, 4, 5, 6, 7, 8, 9. In Table II let $\times$ represent a correct relation between a given item and any other item. From this table we see that there are seventy-two relations involved in a nine-item test but that one-half of these are positive and one-half negative. Since the positive and the negative relations balance each other, we need concern ourselves only with one or the other, and it would seem that thirty-six should be

[1] Sterling G. Brinkley, *Values of New Type Examinations in the High School with Special Reference to History*, p. 21. Teachers College Contributions to Education, No. 161. New York: Teachers College, Columbia University, 1924.

the perfect score of the test. Is it possible so to number the items of the test that there is not a single correct relation existing? In Table III let the correct numbering stand as it was; that is, 1, 2, 3, 4, 5, 6, 7, 8, and 9. Let the pupil mark the exact reverse; that is, 9, 8, 7, 6, 5, 4, 3, 2, and 1. Let × again represent a correct relation and o represent an incorrect relation. It is seen that, on the positive side, the pupil did not rank 1 ahead of 2, 3, 4, 5, 6, 7, 8, and 9, as he

TABLE II

Item	Correct Numbering	Items								
		1	2	3	4	5	6	7	8	9
1	1	....	×	×	×	×	×	×	×	×
2	2	×	....	×	×	×	×	×	×	×
3	3	×	×	....	×	×	×	×	×	×
4	4	×	×	×	....	×	×	×	×	×
5	5	×	×	×	×	....	×	×	×	×
6	6	×	×	×	×	×	....	×	×	×
7	7	×	×	×	×	×	×	....	×	×
8	8	×	×	×	×	×	×	×	....	×
9	9	×	×	×	×	×	×	×	×	....

TABLE III

Item	Pupil's Numbering	Item								
		1	2	3	4	5	6	7	8	9
1	9	....	o	o	o	o	o	o	o	o
2	8	×	....	o	o	o	o	o	o	×
3	7	×	×	....	o	o	o	o	×	×
4	6	×	×	×	....	o	o	×	×	×
5	5	×	×	×	×	....	×	×	×	×
6	4	×	×	×	o	o	....	×	×	×
7	3	×	×	o	o	o	o	....	×	×
8	2	×	o	o	o	o	o	o	....	×
9	1	o	o	o	o	o	o	o	o	....

should have, a total of eight incorrect relations resulting. Item 2 is not ranked ahead of 3, 4, 5, 6, 7, and 8 but is ahead of 9, thus making six incorrect relations. Item 3 is not ranked ahead of 4, 5, 6, and 7 but is ahead of 8 and 9, four incorrect relations being involved. In the case of Item 4 only two incorrect relations result; all the remaining items show the correct relations with all succeeding items. Thus, a total of only twenty errors on the positive side (or an equal number on the negative side) is possible in the most extreme case. Therefore,

20 may be taken as the perfect score for the nine-item test. The deduction of the number of errors actually made by the pupil from the number of errors which it is possible to make, namely, 20, will give an accurate individual score for the pupil. It is because 20 is a number easily handled that a nine-item test was favored in the experimentation.

Granted that this method of scoring is both accurate and individual, it is hardly rapid, and it is certainly elaborate. Fortunately, there is a short cut to the same result which overcomes the difficulty.

Place a key beside the pupil's numbering. Subtract from the correct numbering in all cases in which the pupil has given the item a ranking lower than that on the key. Add the results to obtain the

TABLE IV

Item	Correct Numbering	Pupil's Numbering	Positive Difference
1	4	3	1
2	9	8	1
3	6	5	1
4	3	2	1
5	1	9	.....
6	2	1	1
7	8	7	1
8	7	6	1
9	5	4	1
Total	.....	.....	8

number of errors, that is, the number of incorrect relations. When this number is subtracted from the perfect score of 20, the pupil's score is obtained. In Table IV we return to the first example of the continuity test given ("The Development of Nationality") and reevaluate the pupil's marking of the test, which, under the first suggested method of scoring, was given a score of 0 out of a possible 9. When the more accurate method of measuring the relations is applied, the pupil receives a score of 12 out of a possible 20.

In conclusion, it seems that, if properly constructed and if scored by the last suggested method or one equally accurate and individual, the continuity test is a valuable part of the history teacher's pedagogical equipment. If not well handled, it is, of course, useless, but, if efficiently handled, it may lend itself to the testing of one of the inherent aims of history-teaching.

CLASS OR REPORTER SYSTEM FOR THE HIGH-SCHOOL PAPER?

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The experience of the Flathead County High School, Kalispell, Montana, in publishing its school paper last year may be helpful to other schools which are publishing papers or expecting to do so. The organization of the staff remained the same throughout the year, but two systems of selecting reporters and of teaching journalism were used.

The paper is entirely the result of pupil effort but is strictly supervised by members of the faculty. Lucid expression and attention to good English are regarded as the principal reasons for the publication of the paper. The pupils therefore write and edit everything that is published. There may be times when the paper could serve more efficiently as an organ for publicity and for the spreading of desirable propaganda if the faculty members contributed articles. However, the school is conducted for the training of pupils, and the *Arrow* is a school activity.

Each spring the journalism class nominates at least two members of the class for editor. At least two pupils are nominated for business manager, but the candidates for this office do not necessarily have to be members of the journalism class. After due publicity, the names are voted on by the entire student body. The successful candidates are required to maintain the scholastic standards required of contestants in athletic events. If a pupil fails in this requirement, the instructor in journalism appoints a successor for immediate replacement. The instructor in journalism is, of course, selected by the principal, as are two faculty members who are known as censors. It is the duty of the censors to read all the material before it is printed in order to insure good English. They may also condemn any article which they consider improper for a student publication.

The editor has the same duties as has the editor of any small

paper. She (last year it was a girl) makes all the assignments, specifying the length of the articles, and uses scissors and paste. She also "makes up" the paper, planning the location of each article, and writes the headlines. In both planning the dummy and writing the headlines, she uses other members of the journalism class, particularly those who aspire to the editor's chair. The headlines are written scientifically, the jargon of "points," "ems," and "21-21" having a very definite meaning to the writers. The editor also supervises the proofreading, although much of it is done by those who help with the headlines. As the paper is published every Wednesday, the duties of the editor and her assistants occupy a considerable portion of their time.

The business manager is charged with the responsibility of providing funds to conduct the paper. The paper is not subsidized in any way. The first thing in the school year is a drive for subscriptions. Most of the pupils are finally induced to pay a dollar. The subscriptions provide about one-third of the necessary funds, and the balance must be secured through advertising. As the paper is published regularly and has a definite advertising value, the business men of the town take advantage of the opportunity to advertise in it. The business manager appoints an "ad" man to assist him and eventually turns over to the assistant all the work involved in securing advertising. This leaves the business manager free to keep the accounts in order, under the direction of the instructor in journalism.

The school does not operate a printing plant, the printing being done by a commercial printer on a contract basis.

The work as outlined so far is practically standard. The interesting experience of the school with regard to publishing the paper is confined to the method of conducting the class.

During the first semester, a regular class met three times a week. The editor used a portion of the time to make her assignments. The reporters, of course, were required to use time outside the class period for their interviews. Write-ups were made in class; and, after the paper was published, the various articles were discussed, praised, and criticized. The reporters were encouraged to keep their eyes and ears open in order to write up incidents which were not assigned. Frequently, these were the most interesting material in the paper.

The system worked very well, and the pupils in the class gained experience in viewing a subject from all angles. The desire to escape the rather severe criticism of the class served as an incentive to better work. As the paper is not divided into definite departments, all the reporters had experience in reporting a wide variety of news. Textbooks in journalism were used regularly.

There was one serious defect. Because only a quarter credit a semester is allowed for the subject, many pupils were compelled to forego the work in journalism in favor of the regular subjects which came at the same period. With a small class, it was frequently difficult to secure sufficient material to fill the paper.

At the beginning of the second semester, it was decided to arrange matters so that the training incident to this work would be extended to a larger number of pupils. The regular class was discontinued, and all pupils, except Freshmen, were allowed to register for journalism regardless of the other subjects which they might be carrying. The result was a very much increased enrolment. Many pupils who were interested in writing were given the opportunity to take advantage of the instruction. Since then there has always been a sufficient amount of first-class material.

Although the class is disbanded, the textbooks are still used. The instructor in journalism studies the material turned in by the reporters, and assignments in the text are selected for the individual. After a reasonable time has elapsed, the pupil reports. This must be done individually and after the regular school hours. The writing is then watched to see that the pupil makes proper use of the material studied.

As the assignments can no longer be made in class, the editor has adopted the practice of placing the assignments on a spindle reserved for the reporters. The finished write-ups are placed on another spindle.

The new system makes more demands on the time of both the editor and the instructor in journalism. This is more than compensated for by the fact that the instruction is individual and by the fact that the class is large enough to insure plenty of material to fill the paper even though an experienced reporter or two may be absent from school.

A CRITICAL STUDY OF THE CONTENT OF HIGH-SCHOOL PHYSICS WITH RESPECT TO ITS SOCIAL VALUE

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From a study of the values which parents of high-school pupils attach to the knowledge of high-school physics, it is evident, first, that there are many items of information now taught in the average high-school physics course which are of little importance in adult life and, second, that there are numerous related items not now included in the high-school physics course which are of distinct importance in adult life. Evidence of the truth of the foregoing statements may be found in Tables I and II, which are based on a study of the replies secured from 659 parents of pupils taking high-school physics in the state of Kansas.

Thirty-three topics which are ordinarily treated in high-school physics but which are rated of low practical value by the parents are listed in Table I. Heading this list are the telescope, the inclined plane, and the centrifugal pump. Only 30 per cent of the 659 parents expressing judgments consider a knowledge of these things to be of real value in their own lives. At the other end of the list, knowledge of such things as a series-wound dynamo or a rheostat is considered of value by only 10 per cent of the parents, while the Pelton water wheel gets no favorable mention whatsoever.

In contrast with Table I, Table II exhibits a series of twenty-three physical devices which do not usually receive attention in high-school physics but which from sixty to eighty parents out of every one hundred testify are of genuine importance.

It will be interesting to consider the method by which the facts exhibited in Tables I and II were discovered and a number of additional facts which came to light during the investigation.

A questionnaire was prepared which contained a list of 174 topics in physics together with questions regarding the training, occupa-

tion, and home conveniences of the individual answering. The 174 items included practically every device, other than strictly laboratory devices, which was described or illustrated in any one of three

TABLE I

THIRTY-THREE ITEMS USUALLY TAUGHT IN HIGH-SCHOOL PHYSICS A KNOWLEDGE OF WHICH IS NOT CONSIDERED OF REAL VALUE BY ADULTS

Item	Percentage of 659 Adults Considering Item Important
Telescope	30
Inclined plane	30
Centrifugal pump	30
Why an object is apparently lighter in water than out of water	30
Differential pulley	30
Microscope	30
Electric transformer	20
Ammeter	20
Telegraphy	20
Hydraulic press	20
Banking rails at curves	20
Voltmeter	20
Aeroplane	20
Electromagnet	20
Arc lamp	20
Armature of dynamo	20
Compound steam engine	20
Electroplating	10
Overshot water wheel	10
Binoculars	10
Vernier calipers	10
High-tension electric lines	10
Electric condenser	10
Turbine water wheel	10
Floating dry dock	10
Micrometer calipers	10
Commutator of dynamo	10
Density of irregular solid	10
Bourdon gauge	10
Hydraulic elevator	10
Series-wound dynamo	10
Rheostat	10
Pelton water wheel	0

well-known physics texts. Printed questionnaires were distributed to the physics pupils in seventy-five schools. Each pupil was asked to take the questionnaire home and to have his parents fill it out

TABLE II

TWENTY-THREE ITEMS NOT USUALLY STRESSED IN HIGH-SCHOOL PHYSICS A KNOWLEDGE OF WHICH IS CONSIDERED OF REAL VALUE BY ADULTS

Item	Percentage of 650 Adults Considering Item Important
Ice-cream freezer	80
Window-shade roller	70
To regulate a clock	70
Kerosene lamp	70
Ordinary kitchen range	70
Sewing machine	70
Cream separator	70
Fever thermometer	70
Door lock	70
Fountain pen	70
Oil stove	70
Ordinary heating stove	70
Repairing a pump valve	60
Automobile tires	60
Soldering a hole in a teakettle	60
Automobile radiator	60
Windmill	60
Ball and roller bearings	60
Water trap under sink	60
Vacuum sweeper	60
Clock pendulum	60
Hose nozzle	60
Automobile brakes	60

according to instructions. Answering the questionnaire consisted in checking each item according to the following directions.

1. Check with "1" those items which you have found *worth while* for you to know about and understand.

2. Check with "2" those items which have been of *doubtful value* to you personally yet the study of which you think would be valuable to your son or daughter.

3. Check with "3" those items which you have found of *practically no value* for you to know about.

4. Leave blank any items concerning which your knowledge is so insufficient that you would hesitate to make a judgment.

Six hundred and fifty-nine usable replies were received from fifty-one schools enrolling 1,568 pupils in their physics classes.

A fundamental factor which would seem to have a pronounced effect on the relative stress placed on the various items in the questionnaire is the occupation of the parent. Since the mother's occupation was obvious in most cases, it was only necessary to know the occupation of the father. One of the questions was, "What is the occupation of the father?" The answers to this question were arranged in groups according to the classification used in the federal census reports.

TABLE III

DISTRIBUTION OF SIX HUNDRED FATHERS ON THE BASIS OF OCCUPATION AS COMPARED WITH THE OCCUPATIONAL DISTRIBUTION OF THE MEN IN KANSAS AND IN THE UNITED STATES

Occupation	Number	Per Cent	Percentage in Kansas	Percentage in the United States
Agriculture	258	43.0	42.8	29.8
Extraction of minerals	16	2.7	3.7	3.3
Manufacturing and mechanics	88	14.7	21.0	32.9
Transportation	47	7.8	10.0	8.6
Trade	103	17.2	10.7	10.8
Public service	4	0.7	2.2	2.3
Professional service	56	9.3	3.2	3.4
Domestic and personal service	13	2.1	3.0	3.7
Clerical service	15	2.5	3.3	5.1
Total	600	100.0	99.9	99.9

Fifty-nine of the questionnaires did not include answers to the question concerning the occupation of the father. In most cases this was because the father was not living. The distribution of the six hundred replies to the question concerning the father's occupation is given in Table III.

From a study of Table III, it is observed that the replies used as the basis of this investigation are from a group of people whose interests and activities represent fairly well those of the entire adult population of the state. The various communities are represented, and the fundamental occupational groups appear in satisfactory proportions.

For further comparative study of the replies according to the occupation of the father, the classification of the federal census reports was not followed. An effort was made to select such groups as would be most likely to show variation in the checking of the list of items. For this purpose, the following groups were used: farmers, mechanics, professional service, merchants, clerical service, and laborers. Individuals previously listed as workers in transportation, such as postmen, mail clerks, depot agents, and conductors, were in several cases believed to belong more properly, for the purposes of this study, in the group of clerical workers.

When thus rearranged, there were 257 farmers, 103 mechanics, 70 professional men, 67 merchants, 67 clerical workers, and 36 common laborers. To these 600 classified replies should be added the 59 replies which did not answer the question regarding the occupation of the father but which were otherwise satisfactory. This makes a total of 659 replies which were tabulated and from which conclusions were drawn.

The fifty-nine questionnaires which did not give the occupation of the father were answered very largely by the mothers (77.9 per cent). This being the case, the total evaluation by this group is assumed to be equivalent to a large degree to that which would be obtained from a group of women alone.

In order to compare the importance of the various items as indicated by the responses from the several occupational groups, Table IV was prepared. This table shows the percentage of those in each vocational group who testified that they had found a knowledge of the instrument, device, or process of real value.

It might be expected that the evaluation of many items by any given group would be considerably different from the evaluation of the same items by other groups or by the total. In order to make a comparison in this respect, the correlation was worked out between the responses of each of the leading occupational groups and the total responses. The correlations are shown in Table V. Such high coefficients as are here given indicate that there are very high correlations among the several occupational groups that have found the particular instruments or devices of value in daily life. This is most enlightening, for heretofore we have believed that the type of

TABLE IV

DEVICES OR PROCESSES RELATED TO HIGH-SCHOOL PHYSICS RANKED ACCORDING TO THE PERCENTAGE OF TIMES EACH WAS CONSIDERED OF REAL IMPORTANCE BY 659 ADULTS

Item	Rank	Farmers	Mechanics	Professional Men	Merchants	Clerical Workers	Laborers	Women	Total
Thermometer	1	80	80	80	80	80	90	80	80
Ice-cream freezer	2	80	70	80	60	70	80	80	80
Ordinary kitchen range	3	70	80	80	70	70	80	70	70
Ordinary heating stove	4	80	70	80	60	70	80	70	70
Door lock	5	70	80	70	70	70	80	70	70
Sewing machine	6	70	70	80	70	70	60	80	70
Fountain pen	7	70	70	70	70	80	80	70	70
Window-shade roller	8	70	70	80	60	70	70	70	70
Oil stove	9	70	70	70	70	70	70	70	70
To regulate a clock	10	70	70	70	70	70	70	70	70
Kerosene lamp	11	70	70	70	60	60	70	70	70
Fever thermometer	12	70	70	80	60	70	70	70	70
Firing gun (ordinary rifle)	13	80	70	70	50	50	60	60	70
Cream separator	14	80	50	50	40	40	50	40	70
Spectacles	15	70	60	80	50	70	60	70	70
Water faucet	16	60	80	70	40	60	50	60	60
Crowbar	17	70	70	60	50	50	60	40	60
Block and tackle	18	70	70	60	60	50	70	40	60
Automobile tires	19	70	70	70	60	50	70	40	60
Automobile jack	20	70	70	60	50	50	60	40	60
Electric flatiron	21	40	70	60	70	80	70	80	60
Vacuum sweeper	22	50	70	70	60	60	60	70	60
Soldering a hole in a teakettle	23	60	70	60	50	60	60	30	60
Automobile (or gas engine) carburetor	24	60	60	70	60	50	70	40	60
Ball and roller bearings	25	60	70	60	50	50	60	50	60
Windmill	26	70	60	50	50	50	60	40	60
Hose nozzle	27	60	70	60	50	70	60	50	60
Clock pendulum	28	60	60	70	40	50	60	60	60
Automobile brakes	29	60	60	80	60	50	50	30	60
Water trap under sink	30	50	70	60	60	60	50	50	60
Repairing a pump valve	31	70	60	60	50	40	40	30	60
Wagon scales	32	70	60	50	50	40	60	30	60
Telephone receiver	33	50	60	60	50	50	60	50	60
Electric fan	34	40	70	60	70	80	70	80	60
Automobile radiator	35	60	60	60	60	50	60	30	60
Thermos bottle	36	40	60	70	50	60	70	40	50
Force pump	37	60	70	60	40	50	50	30	50
Tire tester (pressure)	38	60	60	60	70	40	50	20	50
Shades for lamps	39	50	30	60	40	50	50	50	50
Wedge	40	60	60	50	40	50	60	40	50
Phonograph	41	50	60	60	60	50	60	50	50
Windlass	42	50	50	50	40	40	50	20	50
Ordinary mirror	43	60	50	60	50	60	60	60	50
To adjust springs in curtain roller	44	50	60	60	40	60	50	60	50
Fire extinguisher	45	50	60	60	60	60	40	50	50
Chicken automatic drinking fountain	46	60	50	40	30	40	40	50	50

TABLE IV—*Continued*

Item	Rank	Farmers	Mechanics	Professional Men	Merchants	Clerical Workers	Laborers	Women	Total
Automobile engine	47	60	60	70	40	40	60	20	50
Suction pump	48	50	60	60	40	40	50	40	50
To stop a leaky valve	49	50	60	60	40	50	40	40	50
Automobile horn	50	50	60	50	50	40	60	30	50
Safety valve	51	50	70	60	40	40	50	20	50
Grinding automobile valves	52	50	50	50	40	40	30	10	50
Automobile muffler	53	50	60	60	50	40	50	30	50
Gasoline lamp	54	50	50	60	50	40	40	30	50
Fuse in electric-light circuit	55	30	70	60	50	60	50	60	50
Piano	56	50	50	60	40	40	50	60	50
Electric doorbell	57	30	60	70	60	50	60	30	50
Batteries (electric)	58	50	60	60	40	40	40	30	50
Three-horse evener	59	60	40	50	30	40	50	20	50
Differential gears of automobile	60	50	50	50	40	40	50	20	50
Spring balance	61	50	60	50	30	40	50	40	50
Camera	62	40	60	50	40	40	40	40	50
Ignition on automobile, etc.	63	50	60	60	40	50	50	20	50
Telephone transmitter	64	40	50	50	40	40	40	50	50
Fireless cooker	65	40	40	70	40	40	40	50	40
Derrick	66	50	50	40	40	40	40	20	40
Steam-heating system	67	30	60	60	40	70	40	40	40
Typewriter	68	30	50	70	60	50	30	30	40
Hot-air house-heating system	69	40	60	60	40	40	40	30	40
Non-freezing mixture for radiator	70	40	60	40	40	40	50	20	40
Lightning rod	71	60	40	30	30	30	40	40	40
Electric-light meter	72	30	60	60	40	60	60	40	40
Hot-water heating system	73	40	50	60	40	40	50	40	40
Hot-water heater and reservoir	74	40	60	50	40	40	40	30	40
To replace a gas mantle	75	40	50	60	40	40	40	50	40
Teeter board	76	0	40	50	30	40	60	40	40
Automobile transmission gears	77	40	50	50	40	40	40	10	40
Magneto	78	40	50	50	40	30	40	40	40
Kite	79	40	40	50	40	40	40	30	40
Dry farming	80	50	40	50	30	30	30	20	40
Water meter	81	30	60	50	40	50	50	30	40
Reading glass	82	40	30	50	40	40	40	50	40
Barometer	83	40	40	50	20	40	40	40	40
Cash register	84	30	40	40	70	50	50	40	40
Read a gas meter	85	20	60	60	40	50	30	30	40
Rotating lawn sprinkler	86	30	50	40	30	40	30	30	40
Air mixer on gas stove	87	20	50	50	50	40	40	30	40
Single-wire telephone line	88	40	30	40	20	20	40	30	40
Field glass	89	30	40	50	40	30	30	30	40
Differential pulley	90	40	40	30	50	30	40	20	30
Pressure cooker	91	50	40	40	20	30	30	30	30
Adding machine	92	20	30	50	60	40	30	20	30
Electric incandescent lamp	93	20	50	50	30	30	40	30	30
Water reservoir on side of furnace	94	30	40	50	30	30	30	20	30
Test acid in storage battery	95	30	40	30	30	30	30	10	30
Microscope	96	30	30	50	30	30	30	20	30

TABLE IV—*Continued*

Item	Rank	Farmers	Mechanics	Professional Men	Merchants	Clerical Workers	Laborers	Women	Total
Telescope	97	30	30	50	20	30	20	20	30
To make a freezing mixture	98	30	40	40	20	20	20	30	30
Inclined plane	99	30	40	50	20	20	50	20	30
Repair electric-light socket	100	20	50	40	50	40	50	10	30
Wiring a house	101	20	50	40	30	30	30	20	30
Telephone Central	102	30	30	50	20	30	30	30	30
Why an object is apparently lighter in water than out of water	103	20	30	50	20	20	30	20	30
Farm electric-lighting system	104	30	40	30	30	20	20	20	30
River dam	105	30	40	40	30	20	20	10	30
Three-way electric switch	106	10	40	50	20	30	30	20	30
Iceless refrigerator	107	30	30	40	20	20	20	20	30
Artificial ice manufacture	108	20	30	40	20	30	30	20	30
Centrifugal pump	109	20	30	30	20	20	30	10	30
Self-computing scales	110	20	30	50	40	20	30	10	30
Electric signals at railroad crossing	111	20	30	40	20	20	30	10	20
Resistance coil on automobile	112	20	30	30	10	20	30	10	20
Banking rails at curves	113	20	40	40	20	20	30	10	20
Traveling crane	114	10	40	40	20	20	30	0	20
Arc lamp	115	10	40	40	20	20	30	20	20
Telegraphy	116	20	30	20	20	30	20	10	20
Electromagnet	117	10	30	50	10	20	30	10	20
Insurance code rules for wiring	118	10	30	30	20	20	20	10	20
Railway engine turntable	119	10	30	30	20	30	20	10	20
Railway engine headlight	120	10	30	20	20	30	20	10	20
Railway-coach heating	121	10	30	30	10	20	10	10	20
Water motor	122	10	30	30	20	20	30	10	20
Hydraulic press	123	10	30	20	20	10	30	10	20
Steam condenser	124	10	30	20	20	20	10	10	20
Voltmeter	125	10	30	30	10	20	30	10	20
Electric transformer	126	10	30	40	20	10	10	10	20
Automatic air brakes on railroad cars	127	10	30	30	10	30	10	10	20
Wireless telephone	128	10	20	30	20	10	10	10	20
Hot boxes on railroad cars	129	10	20	20	20	30	10	10	20
Hydraulic ram	130	10	30	20	10	20	20	10	20
Tubular steam boilers	131	10	40	20	10	20	30	10	20
Automatic block system on railroad	132	10	30	20	20	20	20	0	20
Balloons	133	20	20	30	10	10	10	10	20
Suspension bridge	134	20	30	20	10	10	10	10	20
Armature of dynamo	135	10	40	30	10	10	30	0	20
Burglar alarms in banks	136	10	20	30	20	10	10	10	20
Aeroplane	137	10	30	30	10	10	20	10	20
Compound steam engine	138	10	30	20	10	10	10	0	20
Forced draft for steam boilers	139	10	30	20	10	20	20	0	20
Ammeter	140	10	30	20	20	20	20	0	20
Moving-picture machine	141	10	20	30	10	10	20	10	20
Lighthouse	142	10	10	20	20	10	20	10	10
Commutator of dynamo	143	10	30	20	10	10	30	10	10
Hydraulic elevator	144	10	20	30	20	10	10	0	10
Steamboat	145	10	20	30	20	10	10	0	10

TABLE IV—*Continued*

Item	Rank	Farmers	Mechanics	Professional Men	Merchants	Clerical Workers	Laborers	Women	Total
Overshot water wheel	146	10	20	20	10	10	10	0	10
Sailing boat	147	10	20	30	10	10	10	0	10
Turbine water wheel	148	10	20	20	10	10	10	0	10
Rheostat	149	0	20	30	10	10	30	0	10
Motors on electric street cars	150	10	20	20	10	10	30	0	10
Corliss steam engine	151	10	30	10	10	10	10	0	10
High-tension electric lines	152	10	20	20	10	10	30	10	10
Telegraph code	153	10	10	20	10	20	10	0	10
Binoculars	154	0	20	30	10	20	0	0	10
Electric condenser	155	0	20	20	10	0	20	10	10
Density of irregular solid	156	10	10	20	10	10	20	0	10
Induction motors	157	0	20	20	10	10	30	10	10
Micrometer calipers	158	0	20	30	10	0	20	0	10
Superheaters	159	0	20	20	10	10	10	0	10
Series-wound dynamo	160	0	20	20	10	10	10	0	10
Under-sea telegraph cable	161	10	20	20	10	10	0	10	10
Vernier calipers	162	0	20	20	10	0	10	0	10
Electroplating	163	0	10	20	10	0	10	0	10
Bourdon gauge	164	10	10	10	0	0	10	0	10
Automatic stokers	165	0	20	0	0	10	10	0	10
Floating dry dock	166	0	10	10	10	0	10	0	10
Medical induction coil	167	0	20	10	0	0	10	0	10
Electric rectifier	168	0	10	20	0	0	10	0	10
Wireless antenna	169	0	0	20	10	0	10	0	0
Fractional distillation	170	0	10	10	0	0	10	0	0
Crystal detector for wireless	171	0	0	10	0	0	10	0	0
Pelton water wheel	172	0	10	0	0	0	0	0	0
Synchronous motors	173	0	10	10	0	0	10	0	0
Audion detector	174	0	0	10	0	0	10	0	0

TABLE V

Correlation between Group Responses and the Total Response and between Different Group Responses

	Correlation
Farmers and total	.95
Mechanics and total	.92
Professional men and total	.92
Merchants and total	.91
Mechanics and farmers	.87
Mechanics and professional men	.89
Women and total	.89

physics for prospective farmers should be substantially different from that for prospective mechanics or professional men, because they are naturally interested along wholly different lines. There has also been almost universal agreement that girls should be given a content different from that given to boys. Table V shows that, if the content of physics is to be determined by the judgment of adults, there will be need for little variation in the subject matter for different vocational careers. In other words, it shows that everyone, regardless of his future vocation, will appreciate a knowledge of a common group of everyday devices.

SUMMARY

1. There is evidence which indicates that there are numerous items treated in physics texts which possess little knowledge value for the majority of the adult population and that there are numerous pertinent items of recognized value which are not included.

2. A questionnaire seeking information as to the value of each of 174 items which appear in textbooks for high-school physics was answered by 659 parents of Kansas high-school pupils.

3. Thirty-five of the 174 items were reported by 60 or more per cent of the parents as being worth while for them to know about or understand.

4. On the other hand, there were twenty-three items, such as ice-cream freezer and automobile radiator, not usually emphasized in high-school physics which were reported by 60 or more per cent of the parents as being worth while for them to know about and understand.

5. An analysis of the distribution of the occupations of the 659 parents answering the questionnaire indicates that they represent very closely the general distribution of population in the state of Kansas.

6. Occupational life makes less difference than has been commonly supposed in the selection of subject matter for high-school courses in physics. There is notably high correlation (more than .90) among farmers, mechanics, professional men, merchants, and women in their choices of worth-while items for a course of study in physics.

THE PROFESSIONAL SPIRIT AMONG ENGLISH SCHOOLMASTERS

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Teaching in England is decidedly a profession but not in the sense in which such a classification is understood in the United States. There is comparatively little attention given by English secondary-school men to the study of modern psychology, school administration, principles of education, and the like. School managers appear to have little interest in the preparation a secondary schoolmaster may have had in these matters. They are much more interested in the personal equation. They ask primarily about a man's knowledge of subject matter, his record at the university, his ability to direct and guide boy life. The school officers appear to have little confidence in the value of procedure either according to principles or according to a theory of education. Some of the masters and headmasters read widely in such fields as have been mentioned, but interest in these subjects as such is not the common bond which holds the schoolmasters together and gives a professional tone to their work.

It is true, however, that the schoolmasters have a real professional spirit and an attitude toward their work which is unmistakable as a professional outlook. Apparently, it comes about partly at least through the force of tradition. The master of a school for boys has been an honorable personage for many centuries. Royalty, both temporal and spiritual, has sponsored English schoolmasters from the very earliest times and still continues to do so. The influence of headmasters in particular has been felt directly in the conduct of affairs in church and state. They have proved themselves a constructive force, and the tradition of the schoolmaster's influence clings to the present members of the profession to hold them together. The English schoolmaster is more than respectable; he is powerful.

Then, too, there is a stock of traditions running back over long centuries which is kept up and passed on from generation to generation of schoolboys. Many of these traditions are common, in spirit if not in form, to several institutions, and they serve as a bond to hold together not only boys and masters but master and master. One amazing example of this is the tradition that "you mustn't let your house down." So persistent is this tradition that it has direct influence on the management of the day schools even though the actual boarding-house does not exist in these schools. Such a tradition and sentiment fosters, of course, small-group consciousness and has a direct bearing on the maintenance of a professional attitude among the masters. Teaching is the English school man's "house," and, if he is a real and true "old boy," and he usually is, he will not "let his house down."

This professional attitude manifests itself in a great variety of ways among the school men but is perhaps most representative in their comment when one of their number changes from one position to another. The focus of their thought and remarks is almost invariably on whether the new place will offer their colleague an equal opportunity with the old to stamp his personality on boy life. A colleague's success is discussed and measured on the basis of his ability and opportunity to develop boy personality. If a master goes from a small to a large school, discussion will center around whether the personality of the man is vigorous enough and large enough to reach out and touch the large group. If a master has a chance to pass to a headship, he considers whether he can best work with sixth-form boys or whether he has characteristics which make him a better man for lower forms because he knows and appreciates the younger boys better. In brief, change to a position "higher up" is not the great criterion of success. The measure of professional approval is the degree to which a master draws out and develops boy personality. Change to a higher rank or to a larger school is not considered by the English secondary schoolmaster as necessarily an advancement. He says, and really means, that there must be an accompanying improved opportunity to reach and influence boys; and he knows very well that a large school or a higher rank does not always carry this improved opportunity. With all the love for pomp, and rank,

and ceremony, and power which is the natural heritage of every Englishman, the secondary schoolmaster has developed a fine professional spirit and has kept artificial distinctions out of it.

To be sure, the English schoolmaster has selected teaching as a life-work. When the young man presents himself as a teacher, there is no question of a later change to something else. The seasoned headmaster has learned that the best teacher is the one who knows boys, and the most effective way in which to know boys is to live with them, not study about them. Living with them means that the masters must meet them not only in classroom work but on the playing fields, in their social life, on expeditions and trips, during their free time, and in as many and varied situations as can be devised. These relations in direct contact with the boys are for the purpose of training the master, and he looks upon them as a means by which he can touch boy life directly. He may never have learned from a book that the work must be motivated, but he will tell you interestingly of the extra hours which a boy spent in working out a set of models for the use of the group studying constructive geometry. The term "intelligence quotient" may be *terra incognita* to him, but he will pick out unerringly the boy who is "a cut above the ordinary." He is, perhaps, somewhat at a loss when asked how the schools exercise the "integrating function," but he tells you amazing stories of the benefits to be derived from "house organization." The words "retardation" and "elimination" convey meaning because of their general connotation, but the English have a much more expressive term for the same idea which everyone can appreciate, that is, "late bloomers." In fact, one finds it a little difficult to talk with these masters and not feel pedantic. They have such a direct and straightforward method of expressing the facts and of stating the situation that one begins to wish for a vocabulary less well filled with specialized professional terms.

Furthermore, the schoolmasters are intensely proud of their work and of their boys. They live day by day and hour by hour, utterly and completely wrapped up in the task of developing Englishmen. They work all the time on the value of the personal equation and insist that mechanical aids to teaching or to organization build up barriers between their personalities and the personalities of their

boys. A boy has myriad relations to life, and each relation influences in combination boy reaction to life; schoolmasters will tell you that it is the province of the master to know the boy in as many of these relations and reactions as possible. Only so can the master know the boy and know how to arouse the life within to expression. Time and thought and energy are spent in studying boys themselves, and little attention is given to a study of theories about education and principles governing the educative process. Schoolmasters are certain that boy life is a complicated affair and that no simple formula explains it or can interpret it. Scientific analysis of boy life, they would insist, is impossible, for changes take place without order or system and so rapidly that science has no technique by which to analyze the phenomena. The very element in the whole situation, in their estimation, is life, and explanation or analysis of that has defied all attempts of science and always will, because it is not objective. They therefore spend their time working with the boys, playing with them, and living with them, not testing, card-indexing, and graphing their traits or their reactions but, in the light of their experience with boys, becoming acquainted with their individual personalities, earning their confidence, meriting their respect, deserving their loyalty.

It is quite evident that this professional spirit and attitude is not identical with the prevailing professional tone and outlook in the United States. Who shall say whether the difference is one of kind or of quality? If the latter, by what criteria shall it be evaluated?

RESTORATION ASSIGNMENTS IN ENGLISH: A MODIFICATION OF THE DALTON PLAN

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In adapting the Dalton Plan to the needs of the South Philadelphia High School for Girls, we found several changes imperative. One of the elements in the situation which necessitated several important deviations from Miss Parkhurst's method was the size of the classes. With enrolments averaging about thirty-five and sometimes exceeding forty, or, to put it more significantly, with a teaching load of 160 or more pupils, we found that the amount of time available for individual conferences was inadequate. Consequently, we had to depend on the guidance given in the printed assignment to a greater extent than was probably intended by the originator of the plan. Although our experience in using our own assignments made clear their many weaknesses and helped us to revise and to improve them, we realized as the term went on that we had not yet achieved the perfect assignment, the one that would fit the needs of every pupil. Moreover, as we became more and more accustomed to regarding our classes as collections of varying individuals rather than as masses, we realized with increasing clearness that no one assignment ever could be equally successful with every child. We looked ahead to experiments with varying assignments adapted to the needs of groups making slow, medium, and rapid progress.

It was a very pressing necessity, however, which forced us to experiment. During the term, it became evident that many of the pupils heretofore carried along on the wave of class progress and unaccustomed to relying on themselves were steadily slipping behind. An analysis of their failure to do the assigned work showed that in many cases the guidance given in the assignment was insufficient. Whenever possible, an attempt was made to give the laggards extra help, but, where the size of the pupil load made this impracticable, supplementary assignments were devised.

A general warning to the effect that all those who were falling behind should work harder was, of course, useless. As every teacher knows, indiscriminate, mechanical drill without any understanding of its purpose is one of the ways in which the diligent but dull pupil wastes time. The foreword of the supplementary assignments therefore attempted to help the pupil to help herself more intelligently. It suggested to her the necessity of discovering as early as possible the specific cause or causes of her failure. An analysis of the aims of the term's work and reference to possible weaknesses or lack of skills and habits essential to the accomplishment of the assignments helped her to diagnose her own case. An early conference with the teacher confirmed the pupil's diagnosis and assured the teacher that the pupil was at least started in the right direction.

The following excerpt from a IX B word-study restoration assignment provides this analysis of the term's work and gives specific directions for using the drill exercises which follow.

IX B word study is divided into five types of work. Do *not* do all the work of one type and then proceed to the next type of work. *Use the following method:* Do an exercise from one group one day and an exercise from the next group the next day, and so on. Repeat frequently the work in which you are the weakest.

The work is divided as follows:

1. Work from silent readers—drills, directions, tables, etc.
2. Poetry, interpretation
3. Detailed prose interpretation
4. Short-story reading—speed and enjoyment
5. Textbook studying

The following letter to the IX A pupils in English was an attempt to help the newcomers to find themselves before it was too late. Its friendly, informal tone was an effective substitute for the encouragement and personal guidance which only smaller classes make possible.

Dear IX A's:

If you have not been doing good work in English during September, October, and November, you had better stop and discover just where your trouble lies.

Perhaps your work in *literature* is poor; if so, there is just one thing we can suggest, that is, re-read your stories carefully and never turn from page 1 to page 2 until you are certain that you understand the first page. Get the habit of being dissatisfied, even miserable, if you are missing anything. Then, when you come to class, you *must* join in the discussions. *Be prepared* to tell what you

think of the people you have met in the stories. Think over the incidents, and be ready to relate the most interesting and dramatic. Put yourselves in the places of the heroes and heroines and decide what you would do if you were they. Be prepared to compare Norse ideals, heroes, and customs with Greek ones, Arabian with Hebrew. In conference keep to the point under discussion and talk in *clear-cut sentences.*

If your composition work is poor, you will have to do much extra writing. You may have a tendency to write incomplete sentences; if so, review subordinate and principal clauses (October's assignment) and get from your teacher a copy of *Exercises in Practical English* by Lewis and Hosic and do Exercise 1. When this work is completed, ask for a special conference.

You may have the bad habit of writing sentences with too many ideas; if so, do the exercises on Leaves 1, 2, 3, and 4 in Ward's *Sentence Book.* Ask your teacher for another conference when this work is completed.

Many girls fail because they are constantly making grammatical errors.

Do you use a singular verb with a plural subject?

Do you say, "He *come* in at five o'clock"?

Do you say, "Mary *give* me the book yesterday"?

Do you say, "*Them* pencils are mine"?

Do you say, "*While standing* near the door, a *girl* came over to talk to me"?

If such errors in grammar are causing your downfall, you had better do the exercises in *Grammar to Use* by Lewis and Lynch, pages 205, 208, 209, 210, and 216, and have your teacher go over them with you.

At least twice a week during the next two months write a carefully built three-sentence theme on any topic that interests you. Your September and October assignments will be helpful. Review them.

Remember that you have to learn to write by writing.

The few suggestions we have given here are for *extra work* for those who need to strengthen their English. Do not neglect your December and January assignments if you want to be a IX B in February.

Very sincerely yours,

TEACHERS OF IX A ENGLISH

Sometimes, particularly in the upper forms, it was evident to the teacher that the cause of a girl's failure lay not in her inability to master the current assignments but rather in her inadequate mastery of the work covered in previous terms. The teacher who prepared the XII A restoration assignment realized that the girls were failing in their business letters, the composition work of that term, because of carelessness or ignorance of certain fundamental skills taken for granted in the current assignment. Accordingly, she devised the following directions for self-drill.

Your failure in composition may be due to a number of causes. Look over the following suggestions and assignments, and work out those which you feel you need. All these details are fundamental.

1. Your difficulty may be with *spelling*. Be careful. Always take time to consult the dictionary. Never guess. Here follow a few words, frequently used, particularly in business letters, that may still be causing you trouble. Dispose of them at once.

experience	affect	necessary	specialized
convenience	effect	occasion	twelfth
recommendation	principal	sufficient	eighth
business	opportunity	receive	four-year
arrangement	principle	receipt	writing

There is a *useful* rule for the spelling of words like "dining" and "stopping." Greever and Jones, *Century Handbook of Writing*, Sections 75 and 76.

Do you know the difference between "day's" and "days'," "year's" and "years'"? (See *Practical English for High Schools* by Lewis and Hosic, p. 101.)

Distinguish between "their" and "there," "it's" and "its," "whose" and "who's."

Never abbreviate the name of any city, including "Philadelphia," no matter where used.

For general help in spelling use Daly, *An Advanced Rational Speller*.

2. Do you still have difficulty with *sentence structure?* If you run your sentences together, using a comma where you should use a period or a semicolon, consult Greever and Jones, *Century Handbook of Writing*, Section 18. Then do the exercises in Section 19. Your teacher also can supply you with practice work.

Remember that a sentence must have a main subject and predicate; Lewis and Lynch, *Grammar to Use*, pp. 1–5. Study it first and then read in *Century Handbook of Writing* by Greever and Jones, Sections 1 and 2. Your teacher will supply you with further practice material.

3. *Punctuation* is still as important as it was when you studied it in X B. If you need review in the use of commas, semicolons, quotation marks, etc., consult the following: Lewis and Hosic, *Practical English for High Schools*, pp. 166–78; Lewis and Lynch, *Grammar to Use*, pp. 177–97; Greever and Jones, *Century Handbook of Writing*, Sections 90–99. Do as much of the practice work as you can, giving it to your teacher for correction.

Every teacher has at times wondered why certain pupils were ever promoted into her classes, realizing all too keenly that other teachers were suffering for her similar errors in judgment. In dealing with cases of that nature—upper-form girls who seemed to have forgotten much of what they presumably had learned in previous terms—it was often found helpful to use not only the restoration

assignment prepared to supplement the term's work but, in addition, several, or perhaps all, of those designed for lower forms. In one or two cases girls of unusual common sense, realizing the inadequacy of their own equipment, requested their teachers to give them the assignments on punctuation designed for X B and the assignments on paragraph structure planned for X A. These were rare cases, however, for, as was said in the beginning, the failures in most instances were due to lack of realization of the causes.

It would be very encouraging to ourselves and to others who are experimenting along the same lines if we were able to say that the restoration assignments proved so successful that there were no failures at the end of the term, but, of course, we cannot. Moreover, it would be just as foolish to expect such results from this experiment as it would be to condemn the scheme as a failure after the one attempt. We need to experiment further if we wish for significant results. We know that we could have achieved a greater degree of success if we had made use of the restoration assignments earlier in the term. Our brief experiment, however, has shown us certain advantages inherent in the scheme. The supplementary assignments will never prevent all failures, but they will take the place of the individual help that the teacher of large classes cannot give. Furthermore, they will help to increase the pupils' ability to help themselves. In other words, they will supervise study.

Educational Writings

REVIEWS AND BOOK NOTES

Teacher participation in educational investigation.—Much of the experimentation in education and psychology has been conducted in laboratories by research workers and investigators. Too frequently the conclusions reached are based on only a few cases; in too many instances the results are stated dogmatically. There is no adequate reason why the competent teacher may not carry on educational experimentation in her classroom to test various teaching procedures in which she is interested. The teacher has opportunities in the way of first-hand daily contact with pupils in the school subjects that the psychologist in his laboratory does not possess. For example, almost any teacher who will take the trouble to divide her pupils into two equal groups can use the parallel-group procedure to investigate such problems as the following: textbook versus supplementary reading materials, the lecture method versus the socialized recitation, the teacher-demonstration method versus individualized laboratory work in science, the incidental method versus the drill method in spelling, and the phonetic method versus the look-and-say method in reading.

A new publication[1] places much emphasis on research work and investigation that may be conducted by the individual teacher in the classroom. The first chapter summarizes the major principles of the psychology of learning. The second chapter deals with the statistics needed by the modern teacher; record forms, filing and indexing, child accounting, averages, variation, and relationship are discussed. Three chapters are concerned with intelligence tests and educational tests as tools for investigation in the hands of the teacher. A discussion of the new-type examinations includes descriptions of two major types, the recall test and the recognition test. The former includes the question-answer and the completion types; the latter includes the alternative-response, the multiple-choice, the matching, and the combination types; most of the subtypes mentioned are further subdivided. A treatment of grouping and classifying pupils shows three methods of effecting pupil adjustment: segregation, regrading (by subjects or by grades), and grouping within grades. The author urges concrete analyses of errors and failure in order to eliminate waste and promote pupil adjustment. The individualization of instruction may be furthered by certain devices described: the survey test, diagnostic and inventory

[1] Burdette Ross Buckingham, *Research for Teachers*. Newark, New Jersey: Silver, Burdett & Co., 1926. Pp. vi+386. $2.20.

tests, analyses of individual errors made on the various questions of a test, and the interview. Concrete illustrations are given to show how the difficulties of children may be diagnosed. The last chapter discusses the teacher as a research worker. The author emphasizes the fact that education needs the teacher as a research worker and the fact that the teacher and the teacher's calling will be benefited if the teacher participates as a research worker.

Twelve tables and nine figures are presented. The reviewer feels that, if tables and figures are important enough to be included in a book, they should be listed and headings should be provided. Neither the tables nor the figures are listed, and the majority of the tables and figures have no explanatory headings. The lists of references for further reading are not extensive but are very well selected. It is suggested that the teacher may to advantage write up the results of her investigations for publication in the professional journals. The author points out the value of the case-study method in educational investigation and experimentation; it seems that a chapter on this subject might well have been included in the book.

Most of the topics dealt with in the ten chapters of the book have been discussed by other authors in separate volumes. However, the present volume performs a service in organizing and summarizing the material for the use of the teacher who is interested in conducting investigations in her classroom. The author is to be commended for the insistence with which he urges the teacher to participate in research. One of the interesting and charming things about the book is the clearness, directness, and informality of the style in which it is written. The author uses frequently and successfully the personal pronouns "I" and "you"; the successful use of these pronouns is an art which few writers in education possess or have attempted to acquire. The partial title, *Research*, which usually has technical and rather awe-inspiring connotations, should not be allowed to deter any teacher from reading the entire discussion.

CARTER V. GOOD

MIAMI UNIVERSITY

A textbook in statistical methods from the student's point of view.—The present period is witnessing a great increase in the number of textbooks in statistical methods. In the last five years no less than ten books which may be called statistical texts primarily for students in education have appeared, in addition to several very noteworthy volumes dealing with statistical methods in the field of economics. Furthermore, many of the books on educational measurement include treatises on elementary statistical processes. If the number of available textbooks is any indication of the popularity of the study, we may feel that the students—mostly graduate students as yet—are making commendable progress toward a quantitative attitude in the solution of their problems. Nothing could be more desirable at the present time, and we may welcome any text which makes a contribution in this direction.

No text can be guaranteed a long period of prominence, because its continued position in the field depends as much on the subsequent developments in the science as on the care taken in the preparation of the manuscript. We may say, however, that those texts which present material with considerable attention to the needs and learning capacities of students will enjoy a widespread reception, and it is the opinion of the reviewer that the text by Garrett[1] is entitled to this expectation. Although not possessing any wide reputation in the field of statistics, Mr. Garrett has succeeded in gathering together a body of statistical principles and examples which form a rather satisfactory text for the student.

The outstanding characteristic of the book is aptly described in the Introduction by R. S. Woodworth: "As anyone can readily see who has tried to teach statistics to the class of students who most need to know the subject, this book is the product of a genuine teacher's experience and is exceptionally well adapted to the student's use. To an unusual degree, it succeeds in meeting the student on his own ground" (p. vi). The student will note with satisfaction the many examples and diagrams giving clarity to the description of intricate points and the evident care taken in pointing out the pitfalls which the beginner encounters. There are explanatory footnotes on about sixty pages of the text.

On the other hand, that the text has certain limitations must not be overlooked. The fact that it was prepared primarily for the student restricts the treatment. It appears to be written without that exactness which is the result of long training and careful study. It contains a noticeable number of careless or uncritical statements. For instance, the treatment of class limits leaves out a very important consideration. At times the detail may be confusing, resulting in the distraction of attention from the development of the principle. The treatment, often scattered and somewhat incoherent, is much better in some parts than in others. For instance, the chapter on "Partial and Multiple Correlation" is fairly complete and commendable. The last chapter, "Some Applications of Statistical Methods and Technique to Tests and Test Results," provides a number of helpful points for students primarily interested in tests.

The statement is made by the author that "theory has everywhere been subordinated to practical application. . . . . The reader will note that in nearly all cases formulas have simply been stated without proof. This has been done because the writer believes that most students of mental and social measurement are—and probably should be—more concerned with what a formula means and does than in how it is derived" (p. vii). This statement is no doubt correct, but overemphasis on this attitude may well be regarded as an unjustifiable catering to popular opinion. The reviewer is not one of those who are anxious to make statistical tools appear so simple that people without proper training will be tempted to use them. Undoubtedly, all students of education

[1] Henry E. Garrett, *Statistics in Psychology and Education*. New York: Longmans, Green & Co., 1926. Pp. xiv+318. $3.50.

today should have a reading knowledge of statistical terms, but much harm may be done by individuals who attempt to use formulas without a background for judging whether they are using them correctly. This background ordinarily calls for a pretty complete understanding of where the formulas come from and the assumptions involved in their derivation, the assumptions being an invisible part of every formula. In certain instances the author has tried to make up for this lack of completeness by listing cautions in the use of formulas, but the intelligent use of statistical methods in other than a routine manner demands a comprehensive understanding of the processes involved which cannot be obtained from a study of "how to use the formula."

These criticisms should not militate against the acceptance of the text until a better one appears. While it may not meet all the exactions of the well-trained instructor of statistics, it is a rather satisfactory attempt to meet the demands of the student, and it is to be commended on this basis. Probably what we may hope for in the future is a book prepared jointly by a highly trained specialist in the field, who will provide the beauty of mathematical precision in statistical logic, and by a student who is close to the problems of the learner endeavoring to assimilate this very refined type of thinking.

DOUGLAS E. SCATES

INDIANA UNIVERSITY

Vocational education and economic society.—Although industrial training has been more or less generally accepted as a part of the educational policy in this and in other countries, there is still need for a concise statement of its aims and functions. As time goes on, problems arising from the wider introduction of industrial education must be solved in the light of changing educational and economic conditions. Theories of education a decade old no longer meet the needs of a progressive industrial order. Among a number of attempts to explain such matters has appeared a contribution[1] that is worthy of special note.

The author has placed within the scope of his book the essential problems of industrial education. Although not so organized, the book is divided into two parts. The first part deals with the sociological aspects of the industrial-education situation. The chapters which comprise this section treat such topics as "Vocation from the Individual and Social Standpoint," "Education and Economic Society," "Consequences of Division of Labor," "The Need for Vocational Education," and "The Selective Function of Vocational Education." The second part deals with method in vocational education.

Because the book is all-inclusive, it fulfils the broad purposes for which it was written. According to the author, the book was prepared "for teachers and prospective teachers in vocational schools and departments of secondary grade; teachers and prospective teachers in professional schools and departments

[1] Theodore H. Eaton, *Education and Vocations: Principles and Problems of Vocational Education*. New York: John Wiley & Sons, Inc., 1926. Pp. vi+300. $2.50.

of college grade; directors, supervisors, and principals in vocational education; and administrative officers and students of the broader aspects of education" (p. iii).

Each chapter is introduced by a series of thought-provoking questions, which are intended to direct the student's reading, and concluded with a summary abstract. In a number of cases this plan leads to needless repetition. In the main, however, the material of the book is worthy of such repetition.

The truth that we learn by doing but that mere doing is not always the best kind of learning is well developed in the chapters devoted to method. Vocational education would be benefited if each person engaged in its service carried into practice what the author of this book has written.

ROBERT WOELLNER

The elementary-school principal as a supervisor.—Those who have profited from the yearbooks of the Department of Elementary School Principals of the National Education Association will welcome a new volume[1] by the editor of these publications. The author's general point of view is that "the educational aspect of the work of the principal begins with a thorough, working knowledge of the principles of pedagogy and the most modern conception of the psychology of each subject" and that "the principal proceeds as the director of education in the individual school, studying the capacities and limitations of the pupils, the experience, attitude, and ability of the teachers, that all efforts may be co-ordinated toward well-defined problems" (pp. v–vi).

Chapter i, entitled, "The Technique of Supervision," sets forth what effective supervision should accomplish and the organization, methods, materials, and general activities which are involved. Chapter ii is aptly named, "The Art of Supervision," and deals with the personal qualities of a good principal or supervisor and the teachers' attitude toward him.

Chapters iii–xi, inclusive, are concerned with "Study Habits" and the direct supervision of the activities of reading, English expression, arithmetic, history, geography, natural science, special subjects, and physical education. As a rule, each chapter presents a short list of teaching objectives, suggestions for diagnosis and remedial teaching, desirable curriculum materials based on scientific research, statements of approved methods, and discussions of the recitation and assignment. The abundance of concrete materials and specific suggestions, much of which the author has worked out in his own school, will doubtless be appreciated by many principals and teachers. For instance, there are more than thirteen pages which illustrate the various types of history tests; a similar amount of space is given to specific suggestions for conducting remedial teaching in reading.

The last five chapters present problems of personnel, testing, and improvement of instruction; include a timely chapter entitled, "The Principal's Self-

[1] Arthur S. Gist, *Elementary School Supervision.* New York: Charles Scribner's Sons, 1926. Pp. xii+308.

Analysis"; and, finally, discuss the duties of the principal and the professional college and university training needed to insure efficient performance.

The book has some weaknesses which, it seems, might well have been explained by the author. Primary teachers will find little of value to them. The illustrations and treatment of schoolroom problems are without exception taken from levels above the third grade. No mention is made of the junior high school although the author freely includes the seventh and eighth grades. The chapters devoted to the supervision of the various school subjects omit citizenship training except as it is treated under history. The author's indorsement of the normal curve of distribution for elementary-school marks will not receive a cordial reception in the large school of modern thought which stands for minimum qualitative standards that a majority of pupils should attain. The treatment of curriculum materials in the various subjects is, in the main, fragmentary and might have been omitted entirely to good advantage in a publication of this kind. While the bibliographies are given liberal space, there are glaring omissions among them.

Despite the objections mentioned, the book marks a milestone in the development of a professionalized elementary-school principalship that will function in educational leadership rather than merely exist as an administrative necessity. It is heartily recommended for consideration by elementary-school principals and teachers, both incumbent and prospective.

PAUL L. PALMER

UNIVERSITY OF CHATTANOOGA

Cross-word puzzles for the French class.—One may smile at the idea of *casse-têtes* in the classroom, but the idea is not so ridiculous as it may seem, as the authors of a little book of cross-word puzzles and games[1] have justly indicated in their Preface. They point out the fact that puzzles and games furnish social stimuli for direct response in the foreign language, promote fluency through opportunity for quick thinking, vitalize grammatical principles, and increase the stock of vocabulary and other facts necessary to language progress.

The material is clearly presented and well organized. Part I contains thirty-nine cross-word puzzles graded from elementary to expert, involving from 4 to 107 words each. Many of the titles are fascinating, as *Aux temps des examens*, *Au dîner*, *Un peu de tout*, *Cherchez la femme*, *Colomba*, *Salade russe*, and *Racine et son temps*. Part II describes clearly and fully a variety of games, such as homonyms, proverbs, charades, *devinettes*, *tableaux vivants*, and literary tableaux, and offers suggestions for dramatic representations. The volume concludes with a list of phrases necessary for conducting a meeting of a *cercle français* and a model for the secretary's report.

The gradation of the material permits the use of the book after the first year in high school or college, when it may be used to advantage occasionally, per-

[1] Simone Deléry and Gladys Renshaw, *S'instruire en s'amusant*. Chicago: Allyn & Bacon, 1926. Pp. viii+94.

haps one day a week, to enliven the interest of the class. For the members of a *cercle français*, it is a veritable *livre de chevet*.

O. F. BOND

Professional improvement through self-analysis.—Improvement in ability to teach increases most rapidly when the individual begins to study and analyze critically his own thought processes and teaching methods. The evaluation of one's own methods of teaching will be far more effective, however, in improving teaching technique if it is based on well-defined psychological and pedagogical principles rather than merely on one's own limited mental resources. In this connection, no one should be better able to indicate the guiding principles for self-study and self-criticism than the teacher or administrator in a normal school or teachers' college who is constantly in intimate touch with teachers in the public schools and who labors in an atmosphere which is conducive to sane, practical pedagogical and psychological thinking.

It is a commendable fact that from teacher-training institutions an increasing number of books and articles on methods and general pedagogical procedure are emanating. Nothing will tend to strengthen the position of these institutions among higher educational agencies and to gain for them their due respect and influence within the profession more than will these tangible evidences of real, productive scholarship. Professor Davis has made a contribution[1] of inestimable worth to teachers, which reflects enviable credit on teacher-training institutions.

In studying the titles of the various chapters, one is conscious of the well-defined purpose which actuated the author. The various topics treated, the organization, the exercises, the criticisms for evaluation, and the references are all pertinent to the question of individual self-improvement. The value of self-criticism and of a study of general and specific criticism by others as a means of professional growth is continually stressed. Significant ideas which are emphasized relate to the various means of self-improvement, such as using a self-rating scale, acquiring the point of view of parents and pupils, properly evaluating modern educational movements, and reading the pupils' minds during class work; useless repetition by the teacher in classroom procedure; and the rate of instruction. The scope of the book is indicated by the following list of additional topics treated: the teaching career, plan of the day's work, concreteness in teaching, written work in school, the fear of silence, fewer and better questions, criticisms of textbook-teaching, assumed teacher superiority and immunity, and the beginning teacher. An added feature of the volume which will greatly enhance its value as a text is the rather extensive list of unique exercises and criticisms at the end of each chapter intended for discussion and evaluation.

The philosophy of the author is well illustrated by the following paraphrased statements and quotation. Criticism by others and by one's self, whether negative or positive, is stimulating to the wide-awake teacher and conducive to an

[1] Sheldon Emmor Davis, *Self-Improvement: A Study of Criticism for Teachers*. New York: Macmillan Co., 1926. Pp. xvi+280.

approach to higher teaching attainment. Constant study of one's own technique in the light of standard psychological and pedagogical writings and recent conclusions from scientific research is necessary for improvement.

> The transition from education and teachers as the objects of criticism to the teacher as an active, creative critic is a natural and inevitable process for all who are wise enough to study educational problems before taking pronounced attitudes. Self-improvement means expert service through mechanical fitness, appreciation of ends, and a willingness to evaluate objectively what our most cherished plans are really accomplishing [p. vi].

Because of its simple, direct style, well-defined organization, wholesome and optimistic atmosphere, logical sequence, and thorough inculcation of the findings of recent scientific research in education, the book will be a distinctly valuable textbook or general reference book for the teacher. It will serve its greatest usefulness as a text or reference book for beginning teachers or teachers with a few years of experience; it will also be valuable to any teacher for general reading.

R. S. Newcomb

East Central State Teachers College
Ada, Oklahoma

The challenge of the high-school curriculum.—In a book[1] of 138 pages Professor Thomas H. Briggs, of Teachers College, Columbia University, has issued a stirring challenge to those engaged in secondary education to attack the fundamental problem of providing a proper curriculum to meet the needs of the varying pupil personnel of the modern secondary school.

In the first chapter the author presents twenty-seven questions which must be considered by students of secondary education before any constructive modification in the curriculum can take place. His purpose is to stimulate large numbers of educators and research workers to undertake curriculum studies with a view to finding answers to fundamental questions in composite results. Each of the twenty-seven questions is accompanied by a brief comment. The casual reader may wonder why answers are not proposed.

> There are two reasons: one is that for many of the questions no satisfactory answer exists; the other is that the purpose of the presentation is not to advocate any theory of education that the author may hold, an advocacy that might easily confuse the issues, but rather to reveal the importance, the extent, and the complexity of the curriculum problem, so that an intelligent comprehensive attack may be made by a large number of educational workers [p. 6].

In the two remaining chapters the author sets forth two neglected phases of the curriculum, namely, "Emotionalized Attitudes" and "Mores." He believes that the curriculum must concern itself with the whole life of the pupil and, therefore, that any reconstructive effort which is restricted to intellectual elements will be woefully inadequate because "life is wholly, or almost wholly,

[1] Thomas H. Briggs, *Curriculum Problems*. New York: Macmillan Co., 1926. Pp. xiv+138.

colored by emotions" (p. 50). In the opinion of the author, education is concerned with the established mores of pupils, the attitudes which good citizens should develop, and the degree to which each should be emotionalized. The curriculum must therefore take into consideration the question of providing the learning situations which will permit the forming and the re-forming of these controlling factors in the behavior of pupils.

The book is not a contribution to curriculum practice, and it will prove a disappointment to those who read it with the idea of securing immediate assistance in curriculum reform. It was prepared for thinkers, those who are willing to be challenged by problems. The author has outlined a sufficient number of problems in the three chapters of his little book to keep the curriculum students in secondary education employed for a generation.

W. C. REAVIS

Episodes from the novels of Anatole France.—A little collection of souvenirs[1] of the childhood of the great French master, Anatole France, proves to be a graceful and charming book, comparable in some ways to *Le petit chose* of Alphonse Daudet. In some respects, however, this new collection fails to compare with the familiar Daudet text. *Le petit chose* has a thread of plot; the life of its youthful hero progresses and expands. *Différents souvenirs de jeunesse*, in contrast, is merely a series of eight disconnected episodes in the life of a dreamy, sensitive, solitary child. What adventures it contains are, for the most part, of the philosophical sort; there is little movement, therefore, for the restless younger reader, little forward urge. The charm, of course, lies not so much in the material itself as in the exquisite literary style in which it is presented. There is much that is intricate in its very simplicity and much that is erudite in its seemingly humble theme. For these reasons it is perhaps scarcely destined to become, as the editor possibly wishes, a widely used text for the younger beginners. It seems rather more suitable as a medium for intensive study in a fairly advanced course in which the beauty and the purity of its remarkable style may be examined a little more critically.

DURBIN ROWLAND

An elementary treatment of abnormal psychology.—The emphasis which has been placed on mental tests and measurements in recent years and the case method of dealing with problem pupils in the elementary school and high school are lending a new significance to the field of abnormal psychology. As a result, there has arisen a demand for a greater familiarity with the borderline cases and abnormal types which are most likely to be met by the teacher, the administrator, and the social worker. A serious difficulty which has confronted those who have been interested in meeting this demand has been the lack of materials

[1] *Différents souvenirs de jeunesse.* Episodes selected from the novels of Anatole France. Edited by V. F. Boyson. New York: Oxford University Press, American Branch, 1925. Pp. 100. $0.50.

organized for classroom use. A recent volume[1] on abnormal psychology is therefore of interest.

The purpose of the text can best be stated in the words of the authors:

> They have, in the first place, attempted to formulate material for a college course which should give in vigorous, very direct, practical fashion acquaintance with the major problems of mental health and mental disease and deficiency [p. v].
>
> The writers have, in the second place, attempted a treatment which should be of definite practical value to those interested in various special fields of work in which problems of personality and adjustment are frequently met; they have had in mind particularly social service, personnel management, work with delinquents, and those most important functionings of the school and college which involve the student's emotional and characterological development and his educational, vocational, and recreational guidance [p. vi].

After outlining the problem in a brief introductory chapter, the authors present the materials of the text under three main divisions. Part I treats methods of case study from the standpoint of history-taking, the study of present conditions, and the technique of case study. Part II deals with "Types of Mental Disease and Disability" and contains the following chapters: "Classification of Mental Types and Diseases," "The Normal Individual," "The 'Borderland' Conditions," "The Functional Psychoses," "The Organic Psychoses," and "The Feeble-minded." In Part III the authors present "Major Problems and Methods of Dealing with Them." The problems discussed are "Differential Diagnosis," "Extent of Mental Disease and Disability," "The Causes of Abnormal Mental States," "The Treatment of Atypical Conditions," and "Mental Hygiene."

The book is written in a clear and largely non-technical style. Furthermore, the technical terms used are defined in a glossary. This feature makes the book well adapted to introductory courses in its field. Throughout the text are illustrative cases which help to give concreteness to the general descriptions of clinical types and methods of procedure.

The psychiatrist will probably criticize this work as lacking in comprehensiveness and detailed analysis. The psychologist will likely feel that it slights the explanation of abnormalities in terms of the nervous mechanism and the theories of consciousness. However, it will serve very acceptably the specific objectives which the authors had in view in producing it, namely, a textbook for an introductory college course in abnormal psychology and a source of general information for the social worker and personnel director. Its complete bibliography indicates plenty of source material of a more technical character for the student who wishes to pursue the subject beyond the compass of the book.

A. J. BRUMBAUGH

[1] Sidney L. Pressey and Luella Cole Pressey, *Mental Abnormality and Deficiency*. New York: Macmillan Co., 1926. Pp. xii+356.

Putting a theory into practice.—Much has been written in recent years concerning the type of education that should be provided for children of different degrees of mental ability. Should children who make high scores on intelligence tests and are therefore adjudged bright be separated for purposes of instruction from children considered average or dull? This question has become controversial among educational theorists. On the one hand, there are those who claim that such a policy in education is undemocratic because it does not give all children an equal chance but predetermines their careers and, further, that the underlying assumptions of the theory are not based on sufficient factual evidence. On the other hand, those who advocate the policy deny that it is undemocratic and assert strongly that, instead of determining a child's career by placing him for purposes of instruction in a group designated as bright, average, or dull, they are giving him a better opportunity to develop his talents to the fullest extent.

As with most other controversial questions, the issue cannot be settled until it is put to a practical test. An experiment has been made in Colorado, and a report has been published.[1]

The author presents to classroom teachers and to students of educational psychology and school administration an account of how he utilized the results of mental tests in introducing the multiple-track system into the schools of Trinidad, Colorado. After a brief review of the testing movement in the first chapter, he describes the "Trinidad Plan" and how it is operating. The work was begun in March, 1922. A psychological examiner administered group intelligence tests to more than three thousand children from the first grade through the high school. On the basis of the test results the children in each grade were divided into three groups: bright, average, and dull. These were designated as the C, B, and A divisions, respectively. "We inverted the natural order of the letters in naming the tracks so that the definite significance of the divisions might not become gossip among the parents and children" (p. 61).

In general, the I.Q. was used as the basis of classification. Those with I.Q.'s below 90 constituted the A divisions; those with I.Q.'s between 90 and 120, the B divisions; and those with I.Q.'s above 120, the C divisions. Originally, the intention was to follow the five-track plan proposed by Professor Terman, but this was abandoned because of administrative difficulties.

As "the key to the success or failure of the multiple-track system lies in the course of study," it was "necessary to go a step farther and adjust the subject-matter to the capacities of the individuals" (p. 73). For the B groups the course of study remained much as it was, but the teachers were urged to disregard it in the A and C divisions, to simplify it for the A divisions and greatly to enrich it

[1] Hobart M. Corning, *After Testing—What?* Chicago: Scott, Foresman & Co., 1926. Pp. x+214. $1.60.

for the C divisions. "Even the physical directors revised their outlines so as to provide different types of work for A and C divisions. The change was made complete for all subjects and grades" (p. 86).

According to the author, the plan has proved to be an unmistakable success. The C division pupils are not held back as formerly but are kept busy competing with their intellectual equals. The new plan has not tended to make them snobbish and arrogant. On the contrary, "it can be claimed and proved that the brilliant are much more humble and tolerant than under the old plan" (p. 185). Under the new system "the A division students have never shown a tendency to become discouraged" (p. 184). The B division children, moreover, are greatly benefited in that they are not neglected as they were before because the teacher was forced to spend the greater part of her time in either helping the dull or keeping the bright occupied.

Before the plan was put into operation four years ago, a successful publicity campaign was conducted. As a result, the plan was enthusiastically received by the parents. "The most pleasing phase of the situation is that the storm of opposition which was anticipated has never arrived" (p. 183).

As for the ultimate success of the experiment, four years is too brief a period for final judgment to be passed. The plan is too revolutionary in character and penetrates too deeply into the principles of democracy in education to be evaluated properly in a few years of study.

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BENNETT, CHARLES ALPHEUS. *History of Manual and Industrial Education up to 1870.* Peoria, Illinois: Manual Arts Press, 1926. Pp. 462. $3.50.

BURNHAM, WILLIAM H. *Great Teachers and Mental Health: A Study of Seven Educational Hygienists.* New York: D. Appleton & Co., 1926. Pp. xiv+352.

FREEMAN, FRANK N. *Mental Tests: Their History, Principles and Applications.* Boston: Houghton Mifflin Co., 1926. Pp. x+504. $2.40.

HELSETH, INGA O. *Children's Thinking: A Study of the Thinking Done by a Group of Grade Children When Encouraged To Ask Questions about United States History.* Teachers College Contributions to Education, No. 209. New York: Teachers College, Columbia University, 1926. Pp. vi+164. $1.50.

HERTZBERG, OSCAR EDWARD. *A Comparative Study of Different Methods Used in Teaching Beginners to Write.* Teachers College Contributions to Education, No. 214. New York: Teachers College, Columbia University, 1926. Pp. 62. $1.50.

KENNON, LAURA HALL VERE. *Tests of Literary Vocabulary for Teachers of English.* Teachers College Contributions to Education, No. 223. New York: Teachers College, Columbia University, 1926. Pp. viii+78. $1.50.

LOOMIS, ARTHUR KIRKWOOD. *The Technique of Estimating School Equipment Costs.* Teachers College Contributions to Education, No. 208. New York: Teachers College, Columbia University, 1926. Pp. vi+112. $1.50.

MUDGE, E. LEIGH. *Varieties of Adolescent Experience.* New York: Century Co., 1926. Pp. xvi+134. $1.75.

STRANG, RUTH. *Subject Matter in Health Education.* Teachers College Contributions to Education, No. 222. New York: Teachers College, Columbia University, 1926. Pp. 108. $1.50.

TILTON, J. W. *The Relation between Association and the Higher Mental Processes.* Teachers College Contributions to Education, No. 218. New York: Teachers College, Columbia University, 1926. Pp. viii+56. $1.50.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

Art Education for Elementary Schools and Secondary Schools. Hartford, Connecticut: State Board of Education, 1926. Pp. 96.

Character Development in the Junior High Schools. Oakland, California: Board of Education. Pp. 102.

Classified Types of Literature. Edited by Mabel Irene Rich. New York: Century Co., 1926. Pp. xxii+688.

ELSON, HENRY W. *United States: Its Past and Present.* Chicago: American Book Co., 1926. Pp. xxxviii+550. $1.60.

An Exploratory Course in General Language. Developed by Lucy Mallary Bugbee, Elma M. Clark, Paul S. Parsons, Ruth S. Green, Donald B. Swett, and Clarice E. Williams. Chicago: Benj. H. Sanborn & Co., 1926. Pp. xii+258.

GLEESON, ALICE COLLINS. *Colonial Rhode Island.* Pawtucket, Rhode Island: Automobile Journal Publishing Co., 1926. Pp. 260.

LOGAN, CONRAD T., CLEVELAND, ELIZABETH P., and HOFFMAN, MARGARET V. *Practice Leaves in English Fundamentals (Form A).* Boston: D. C. Heath & Co., 1925. 30 leaves.

MILLER, GEORGE FREDERICK. *Objective Tests in High School Subjects.* Norman, Oklahoma: George Frederick Miller, 1926. Pp. 168.

QUINTERO, SERAFÍN, and QUINTERO, JOAQUÍN ALVAREZ. *Puebla de la mujeres.* Edited by Lula Giralda Adams. New York: Century Co., 1926. Pp. xviii+136.

Readings in Civic Sociology. Selected and edited by Edward Alsworth Ross and Mary Edna McCaull. Yonkers-on-Hudson, New York: World Book Co., 1926. Pp. xxii+398. $1.80.

Studies in Character Growth in the High Schools. Oakland, California: Board of Education, 1926. Pp. 152.

TARR, RALPH S., and VON ENGELN, O. D. *New Physical Geography.* New York: Macmillan Co., 1926 [revised]. Pp. xii+690.

WAGGONER, HARRY DWIGHT. *Modern Biology: Its Human Aspects.* Boston: D. C. Heath & Co., 1926. Pp. viii+482.

WALKER, ARTHUR TAPPAN. *Caesar's Gallic War, Books I–VII.* Chicago: Scott, Foresman & Co., 1926 [revised]. Pp. 600+102. $1.72.

WARREN, G. F. *Elements of Agriculture.* New York: Macmillan Co., 1926 [revised]. Pp. xx+550.

WELLS, WEBSTER, and HART, WALTER W. *Modern Plane Geometry.* Boston: D. C. Heath & Co., 1926. Pp. x+322.

WILLIAMSON, THAMES ROSS. *Introduction to Sociology.* Boston: D. C. Heath & Co., 1926. Pp. x+338.

WOOLLEY, EDWIN C. *New Handbook of Composition.* Revised and enlarged by Franklin W. Scott. Boston: D. C. Heath & Co., 1926. Pp. xxviii+342.

PUBLICATIONS OF THE UNITED STATES BUREAU OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

Education in India in 1924–25. Calcutta, India: Bureau of Education, 1926. Pp. 60.

GOODENOUGH, FLORENCE L. Goodenough Intelligence Test for Kindergartens and Primary Grades. Yonkers-on-Hudson, New York: World Book Co., 1926.

MONROE, WALTER S. *Teachers' Objectives.* Educational Research Circular No. 45. University of Illinois Bulletin, Vol. XXIII, No. 39. Urbana, Illinois: University of Illinois, 1926. Pp. 24.

Recent issues of the Bureau of Education:
Bulletin No. 41, 1925—*Statistics of City School Systems, 1923–24.*
Bulletin No. 8, 1926—*How the World Rides.*

Report of the High School Visitor, University of Illinois, for the Year 1925–26. University of Illinois Bulletin, Vol. XXIII, No. 47. Urbana, Illinois: University of Illinois, 1926. Pp. 38.

SCHMIDT, H. W. Wisconsin Score Card for City School Buildings. Madison, Wisconsin: John Callahan, State Department of Public Instruction.

Thirteenth Annual Schoolmen's Week Proceedings, March 24–27, 1926. University of Pennsylvania Bulletin, Volume XXVI, No. 38. Philadelphia: University of Pennyslvania, 1926. Pp. 500.

MISCELLANEOUS PUBLICATIONS

GRAVES, FRANK PIERREPONT, *Addresses and Papers, 1921–26.* Albany, New York: University of the State of New York Press, 1926. Pp. 390.

ROBINSON, EDWARD STEVENS. *Practical Psychology: Human Nature in Everyday Life.* New York: Macmillan Co., 1926. Pp. xii+480.

The Work of the College Entrance Examination Board, 1901–1925. Boston: Ginn & Co., 1926. Pp. x+300. $4.00.